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CYBER TRANSPORT

CAREER FIELD EDUCATION AND TRAINING PLAN

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CYBER TRANSPORT
AFSC 3D1X2
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PART I

Preface

1. The changing Command, Control, Communications, Computer, and Intelligence (C4I) and Air and Space Expeditionary Forces (AEF) environments require vision, preparation, and attention to ensure people have the right skills and tools to deliver the C4I capabilities and the support required by the war fighter in meeting the Air Force mission of today and the vision of the future. Declining resources, expanding diversity of mission, and ever-changing technologies in the Air Force are impacting the availability of our most valuable resource--people. These factors will continue to exist in the future, making it essential for the work force to be effectively and efficiently trained to perform duties within each skill level of an Air Force Specialty (AFS). To meet the challenges of tomorrow, the Air Force must place a greater emphasis on career field training. This Cyber Transport Systems Career Field Education and Training Plan (CFETP) is a comprehensive core training document that identifies life-cycle training/education requirements, support resources, and minimum core task requirements for the 3D1X2 specialty. The plan is a "training road map" for the career field. It provides personnel a clear career path to success and makes career field training identifiable, measurable, and budget defensible.

2. This CFETP is a comprehensive education and training document that identifies life cycle education and training requirements, training support resources, and minimum core task requirements for this specialty. The CFETP documents the career field training program and consists of two parts. Management uses both parts in conjunction with the Training Business Area (TBA) to plan, manage, and control training within the career field. NOTE: Civilians occupying associated positions will use Part II to support duty position qualification training.

2.1. Part I provides information necessary for overall management of the specialty. Section A explains how everyone will use the plan; Section B identifies career field progression information, duties and responsibilities, training strategies, and career field path; Section C associates each level with specialty qualifications (knowledge, education, experience, training, and other); and Section D indicates resource constraints. Some examples are funds, manpower, equipment, facilities; Section E identifies transition training guide requirements for SSgt through MSgt.

2.2. Part II includes the following: Section A: identifies the Specialty Training Standard (STS) and includes duties, tasks, TRs to support training, AETC conducted training, wartime course and core tasks and correspondence course requirements. Section B: contains the Course Objectives List (COL) and training standards supervisors will use to determine if airmen satisfied training requirements. Section C: identifies available support materials. An example is a Qualification Training Package, which may be developed to support proficiency training; Section D identifies a training course index supervisors can use to determine resources available to support training. Included here are both mandatory and optional courses; Section E identifies MAJCOM unique training requirements supervisors can use to determine additional training required for the associated qualification needs. At unit level, supervisors and trainers will use Part II to identify, plan, and conduct training commensurate with the overall goals of this plan.

3. Use of the guidance provided in this CFETP provides the foundation for effective and efficient training for individuals in this career field at the appropriate points in their careers. This plan enables the Air Force to train today's work force for tomorrow's jobs.

Abbreviations/Terms Explained

This section provides a common understanding of the terms that apply to the Cyber Transport Career Field and Education Training Plan.

Advanced Training (AT). A formal course of training that leads to a technical or supervisory level of an AFS. Training is for selected airmen at the advanced level of an AFS.

Air and Space Expeditionary Force (AEF). The AEF is the Air Force's methodology for organizing, training, equipping, and sustaining rapidly responsive air and space forces to meet defense strategy requirements. Through the AEF, consisting of enabler and tempo banded capabilities the Air Force supports defense strategy requirements using a combination of both permanently assigned and rotational (allocated) forces

Air and Space Expeditionary Task Force (AETF). The AETF is the Air Force's primary warfighting organization and the means by which we present forces to a Joint Forces Commander (JFC).. When established, AETFs will form up under the designated Air Force component headquarters.

Air Education Training Command (AETC). Responsible for the recruiting, training and education of Air Force personnel. AETC also provides pre-commissioning, professional military, and continuing education.

Air Force Career Field Manager (AFCFM). Representative appointed by the respective HQ USAF Deputy Chief of Staff or Under Secretariat to ensure that assigned Air Force specialties are trained and utilized to support Air Force mission requirements.

Air Force Enlisted Classification Directory (AFECD). The official directory for all military enlisted classification descriptions, codes, and identifiers. Establishes the occupational structure of the Air Force enlisted force. The occupational structure is flexible to permit enlisted personnel to specialize and develop their skills and abilities while allowing the Air Force to meet changing mission requirements. Individual enlisted personnel have a joint responsibility with commanders and supervisors at all levels to fully develop their abilities consistent with Air Force needs and within the established patterns of specialization.

Air Force Job Qualification Standard (AFJQS). A comprehensive task list that describes a particular job type or duty position. Supervisors use the AFJQS to document task qualification. The tasks on AFJQSs are common to all persons serving in the described duty position.

Air Force Qualification Training Package (AFQTP). An instructional course designed for use at the unit to qualify or aid qualification in a duty position, program, or on a piece of equipment. It may be printed, computer-based, or other audiovisual media.

Air Force Specialty (AFS). A group of positions, with the same title and code, that requires common qualifications.

Air Force Tactics, Techniques and Procedures (AFTTP). Air Force technical training publication. Source: http://www.dtic.mil/doctrine/new_pubs/jp1_02.pdf.

Air University Associate-to-Baccalaureate Cooperative (AU ABC). Allows Airmen to turn a Community College of the Air Force Associates Degree into a Bachelors Degree from an accredited university. The ABC program has established a partnership with various civilian higher-education institutions to offer four-year degree opportunities via distance learning. The participating schools will accept all of the credits earned by Airmen who have attained a CCAF degree and apply them to a Bachelors degree related to their Air Force specialty.

Air University/A4L. The result of a reorganization of the Air Force Institute for Advanced Distributed Learning (AFIADL); provides access to the Extension Course Institute.

Career Field Education and Training Plan (CFETP). A CFETP is a comprehensive core training document that identifies: life-cycle education and training requirements; training support resources and minimum core task requirements for a specialty. The CFETP aims to give personnel a clear path and instill a sense of industry in career field training. CFETPs are officially posted at http://www.e-publishing.af.mil/

Certification. A formal indication of an individual's ability to perform a task to required standards.

Certifying Official. A person assigned by the commander to determine an individual's ability to perform a task to required standards.

Chemical, Biological, Radiological, Nuclear, and High-Yield Explosive (CBRNE) Task Qualification Training (TQT). CBRNE TQT ensures personnel maintain proficiency in performing mission-critical tasks in a CBRNE environment. See AFI 10-2501, Air Force Emergency Management (EM) Program Planning and Operations, and AFMAN 10-2602, Nuclear, Biological, Chemical and Conventional (NBCC) Defense Operations and Standards for additional information/requirements.

Chief Enlisted Manager (CEM) Code. CEM codes identify all chief master sergeant positions in the Enlisted Classification Structure. They also identify chief master sergeants who, through extensive experience and training, have demonstrated managerial ability to plan, direct, coordinate, implement, and control a wide range of work activity. Some managerial duties and responsibilities that are common to all chief enlisted managers are: managing and directing personnel resource activities; interpreting and enforcing policy and applicable directives; establishing control procedures to meet work goals and standards; recommending or initiating actions to improve functional operation efficiency; planning and programming work commitments, and schedules; developing plans regarding facilities, supplies, and equipment procurement and maintenance.

Collaboration. Collaboration is the interaction among two or more individuals encompassing a variety of behaviors including: communication, information sharing, coordination, cooperation, problem-solving, and negotiation.

Collaborative Tools. Collaborative tools consist of various web-based technologies including advanced white boarding, groupware, and facilitation. Collaborative capabilities assist significantly with managing information throughout its life cycle and enable Air Force members to perform most office-oriented and operational communication tasks from their desktops.

Command, Control, Communications, Computer, Intelligence, Surveillance, and Reconnaissance (C4ISR). Integrated systems of doctrine, procedures, organizational structures, personnel, equipment, facilities, and communications designed to support a commander's exercise of command and control through all phases of the operational continuum. C4 systems include base visual information support systems. http://www.dtic.mil/doctrine/new_pubs/jp1_02.pdf.

Communications-Computer Systems (C-CS). The facilities, equipment, communications, procedures, and personnel essential to a commander for planning, directing, and controlling operations of assigned forces pursuant to the missions assigned.

Communications-Electronics (C-E). The specialized field concerned with the use of electronic devices and systems for the acquisition or acceptance, processing, storage, display, analysis, protection, disposition, and transfer of information.

Computer Based Training (CBT). A forum for training in which the student learns via a computer terminal. It is an especially effective training tool that allows the students to practice applications while they learn.

Content Management (CM). A set of processes and technologies supporting the evolutionary life cycle of digital information. This digital information is often referred to as content or, to be precise, digital content. Digital content may take the form of text, such as documents, multimedia like audio or video files, or any other file type that follows a content life cycle that requires management.

Continuation Training. Additional advanced training that exceeds the minimum upgrade training requirements and emphasizes present or future duty assignments.

Core Competency. An integrated bundle of expert knowledge and organizational skills inherent to a particular career field(s) which makes a disproportionate contribution to the success of providing the right skills needed for military operations, anywhere anytime. It cannot be duplicated by any other organization, and is critical for the future.

Core Task. A task AFCFMs identify as a minimum qualification requirement for everyone within an AFSC, regardless of duty position. A core task may be specified for a particular skill level or in general across the AFSC. Guidance for using core tasks can be found in the applicable CFETP narrative.

Course Objective List (COL). A publication derived from the initial/advanced skills Course Training Standard (CTS), identifying the tasks and knowledge requirements and respective standards provided to achieve a 3-skill level in this career field. Supervisors use the COL to assist in conducting graduate evaluations in accordance with AFI 36-2201 *Air Force Training Program*.

Course Training Standard (CTS). A standard developed for all courses not governed by an STS, including specialized training packages and computer-based training courses.

Critical Tasks. Critical Tasks are tasks that require specific training and certification above and beyond other tasks. Tasks may be defined as critical either through AFI, Technical Orders, higher headquarters, or at any level in the unit.

Data Management. The process of planning, coordinating, sharing, and controlling organizations' data resources (AFPD 33-3, Information Management).

Document Management (DM). The process of managing documents through their life cycle; from inception through creation, review, storage, dissemination, and archival or deletion. Document management can also be a database system to organize stored documents, or a search mechanism to quickly find specific documents (AFPD 33-3).

Direct Reporting Unit (DRU). Air Force subdivisions directly subordinate to the CSAF. A DRU performs a mission that does not fit into any of the MAJCOMs. A DRU has many of the same administrative and organizational responsibilities as a MAJCOM (Example of a DRU: USAF Academy).

Duty Position Tasks. The tasks assigned to an individual for the position currently held. These include, at a minimum, all core tasks that correspond to the duty position, and tasks assigned by the supervisor (AFI 36-2201).

Education and Training Course Announcement (ETCA). Located at https://etca.randolph.af.mil, the ETCA contains specific MAJCOM procedures, fund cite instructions, reporting instructions, and listings for those formal courses the MAJCOMs or FOAs conduct or manage. The ETCA contains courses the Air Force and reserve forces conduct or administer and serves as a reference for the Air Force, DoD, other military services, government agencies, and security assistance programs.

Enlisted Specialty Training (EST). A mix of formal training (technical school) and informal training (on-the-job) to qualify and upgrade airmen in each skill level of a specialty.

Enterprise. The entire range of communications/networking within garrison and tactical realms to include voice, video, data, imagery, and sensor.

Enterprise Information Management (EIM). Encompasses a set of strategies for organizational management of all aspects of enterprise data as information assets. The proper models, data architecture, application architecture, and integration vision enables using the "enterprise information asset" for strategic analysis, customer-centricity, performance and productivity analytics, and personalization, eventually providing a means for transitioning from an operational, line-of-business oriented application environment, to an intelligent, learning, and agile organization.

Expeditionary Aerospace Force (EAF). The EAF concept is how the Air Force will organize, train, equip, and sustain itself by creating a mindset and cultural state that embraces the unique characteristics of aerospace power – range, speed, flexibility, precision – to meet the national security challenges of the 21st Century.

Exportable Training. Additional training via computer assisted, paper text, interactive video, or other necessary means to supplement training.

Field Operating Agency (FOA). FOAs are subdivisions of the Air Force directly subordinate to a headquarters US Air Force functional manager. A FOA performs field activities beyond the scope of any of the MAJCOMs. The activities are specialized or associated with an Air Force-wide mission (Example of a FOA is the Air Force Weather Agency).

Field Training. Technical, operator, and other training that either a field training detachment or field training team conducts at operational locations on specific systems and associated direct-support equipment for maintenance and aircrew personnel.

Functional Area Manager (FAM). The individual accountable for the management and oversight of all personnel and equipment within a specific functional area to support operational planning and execution. Responsibilities include, but are not limited to, developing and reviewing policy; developing, managing, and maintaining Unit Type Codes (UTC); developing criteria for and monitoring readiness reporting; force posturing; and analysis. At each level of responsibility (Headquarters Air Force, MAJCOM, Air Component, FOA, DRU, and Unit), the FAM should be the most highly knowledgeable and experienced person within the functional area and have the widest range of visibility over the functional area readiness and capability issues (AFI 36-2201).

Functional Manager (FM). An individual assigned collateral responsibility for training, classification, utilization, and career development of personnel. AFSC Functional Managers exist at MAJCOM, NAF and base level.

Global Combat Support System – Air Force (GCSS-AF). An enterprise infrastructure program established to develop, integrate, and deploy combat support information capabilities. The mission of GCSS-AF is to provide timely, accurate, and trusted Agile Combat Support (ACS) information to Joint and Air Force commanders, their staffs, and ACS personnel at all ranks and echelons with the appropriate level of security needed to execute the Air Force mission throughout the spectrum of military operations. GCSS-AF is the means by which ACS functional systems will be modernized and integrated to improve business processes supported on a single robust network-centric infrastructure. In addition to integrating combat support applications, GCSS-AF also provides core enterprise services such as a common user presentation through the AF Portal, Enterprise Information Management (Workflow, Records Management, Document Management, Knowledge Management, and Collaboration), and an enterprise data warehouse.

Global Command and Control System (GCCS). An automated information system designed to support deliberate and crisis planning with the use of an integrated set of analytic tools and flexible data transfer capabilities. GCCS will become the single C4I system to support the warfighter from foxhole to command post.

Global Information Grid (GIG). The globally interconnected, end-to-end set of information capabilities, associated processes, and personnel for collecting, processing, storing, disseminating and managing information on demand to warfighters, policy makers, and support personnel. The GIG includes all owned and leased communications and computing systems and services, software (including applications), data, security services, and other associated services necessary to achieve Information Superiority. The GIG supports all Department of Defense, National Security, and related Intelligence community missions and functions (strategic, operational, tactical, and business), in war and in peace. The GIG provides capabilities from all operating locations (bases, posts, camps, stations, facilities, mobile platforms, and deployed sites). The GIG provides interfaces to coalition, allied, and non-DOD users and systems.

Go/No-Go. The “Go” is the stage at which a trainee has gained enough skill, knowledge, and experience to perform the tasks without supervision; meets the task standard. “No-Go” is the stage at which the trainee has not gained enough skill, knowledge, and experience to perform task without supervision; does not meet task standard.

Individual Training Plan (ITP). Use AF Form 623, On-the-Job Training Record/AF Form 623B, or other approved records system (e.g., Training Business Area (TBA)). The AF Form 623 reflects past and current qualifications and is used to determine training requirements. It is intended to be a complete history of past training and current qualifications. Supervisors will ensure all documentation is accurate and comprehensive.

Information Life Cycle. Typically characterized as creation or collection, processing, dissemination, use, storage, protection, and disposition. (DoDD 8000.1, Management of the Department of Defense Information Enterprise).

Information Management (IM). The planning, budgeting, manipulating, and controlling of information throughout its life cycle. Joint Publication 3-0 further defines IM as the function of managing an organization’s information resources by the handling of knowledge acquired by one or many different individuals and organizations in a way that optimizes access by all who have a share in that knowledge or a right to that knowledge.

Information Resources Management (IRM). The process of managing information resources to accomplish agency missions and to improve agency performance (e.g., the reduction of information collection burdens on the public). (AFPD 33-1)

Initial Skills Training. A formal school course that results in an AFSC 3-skill level award for enlisted or mandatory upgrade training to qualified officers. (AFI 36-2201).

Instructional System Development (ISD). A deliberate and orderly (but flexible) process for planning, developing, implementing, and managing instructional systems. It ensures personnel are taught in a cost efficient way to become educated on the knowledge, skills, and abilities essential for successful job performance.

Joint Tactical Radio System (JTRS). JTRS will link the power of the Global Information Grid (GIG) to the warfighter in applying fire effects and achieving overall battlefield superiority. By developing and implementing an open architecture of cutting-edge radio waveform technology, multiple radio types (e.g., handheld, ground-mobile, airborne, maritime, etc.) are now allowed to communicate with one another. The ultimate goal is to produce a family of interoperable, modular, software-defined radios that operate as nodes in a network to ensure secure wireless communication and networking services for mobile and fixed forces. These goals extend to U.S. allies, joint and coalition partners, and disaster response personnel.

Knowledge Based Operations (KBO). KBO is the Air Force approach for managing information and intellectual capital assets, such as people, processes and tools. Having timely, accurate, and relevant information is critical to build the Air Force's information superiority.

Knowledge Management (KM). The handling, directing, governing, or controlling of natural knowledge processes (acquire/validate, produce, transfer/integrate knowledge) within an organization in order to achieve the goals and objectives of the organization. KM seeks to make the best use of the knowledge available to an organization, creating new knowledge, and increasing awareness and understanding in the process. KM can also be defined as the capturing, organizing, and storing of knowledge and experiences of individual workers and groups within an organization and making this information available to others in the organization. (AFPD 33-3)

Knowledge Training. Training used to provide a base of knowledge for task performance. It may also be used in lieu of task performance when the training capability does not exist. Learning gained through knowledge rather than hands-on experience (AFI 36-2201).

Major Command (MAJCOM). A MAJCOM represents a major Air Force subdivision having a specific portion of the Air Force mission. Each MAJCOM is directly subordinate to HQ USAF. MAJCOMs are interrelated and complementary, providing offensive, defensive, and support elements.

Master Task Listing (MTL). A comprehensive list (100%) of all tasks performed within a work center and consisting of the current CFETP or AFJQS and locally developed AF Forms 797. Also, should include tasks required for deployment and/or UTC requirements.

Master Training Plan (MTP). Employs a strategy for ensuring the completion of all work center job requirements by using an MTL, providing milestones for task/CDC completion and prioritizes deployment/UTC tasks, home station training tasks, upgrade tasks, and qualification tasks.

Occupational Survey Report (OSR). A detailed report showing the results of an occupational survey of tasks performed within a particular AFSC.

On-the-Job Training (OJT). Hands-on, over-the-shoulder training conducted to certify personnel in both upgrade (skill level award) and job qualification (duty position) training.

Proficiency Training. Additional training, either in-residence, or exportable advanced training courses, or on-the-job training, provided to personnel to increase their skills and knowledge beyond the minimum required for upgrade.

Qualification Training. Hands-on, task performance based training designed to qualify airmen in a specific duty position. This training program occurs both during and after the upgrade training process and is designed to provide skills training required to do the job.

Records Management. The planning, controlling, directing, organizing, training, promoting, and other managerial activities involved in records creation, maintenance and use, and disposition in order to achieve adequate and proper documentation of the policies and transactions of the Federal Government and effective and economical management of agency operations. (AFPD 33-3)

Resource Constraints. Resource deficiencies (such as money, facilities, time, manpower and equipment) that preclude desired training from being delivered.

Specialty Training Package and COMSEC Qualification Training Package. A composite of lesson plans, test material, instructions, policy, doctrine, and procedures necessary to conduct training. These packages are prepared by AETC, approved by National Security Agency (NSA), and administered by qualified communications security (COMSEC) maintenance personnel.

Specialty Training Requirements Team. A meeting chaired by the AFCFM with MAJCOM FMs, AETC Training Managers, Subject Matter Experts (SME), and Air Force Occupational Measurement Squadron (AFOMS) in attendance. Typically held three months prior to a Utilization and Training Workshop (U&TW) to finalize any CFETP changes or enlisted classification directory descriptions.

Specialty Training Standard (STS). An Air Force publication that describes an Air Force specialty in terms of tasks and knowledge that an airman in that specialty may be expected to perform or to know on the job. Also identifies the training provided to achieve a 3-, 5-, or 7-skill level within an enlisted AFS. It further serves as a contract between AETC and the functional user to show which of the overall training requirements for an Air Force Specialty Code (AFSC) are taught in formal schools and correspondence courses.

Standard. An exact value, a physical entity, or an abstract concept established and defined by authority, custom, or common consent to serve as a reference, model, or rule in measuring quantities or qualities, establishing practices or procedures, or evaluating results. It is a fixed quantity or quality.

System Training Plan (STP). A living document that explains what training is needed for a system and how to obtain the training.

Task Module (TM). A group of tasks performed together within an AFS that require common knowledge, skills, and abilities. TMs are identified by an identification code and a statement.

Total Force. All collective components (active, reserve, guard, and civilian elements) of the United States Air Force.

Training Advisory Group (TAG). Chaired by the AFCFM and attended by the MAJCOM, selected DRU's, and FOA functional managers. The TAG sets training goals and priorities, reviews training programs, and evaluates emerging training technologies. The group meets, as required, to prioritize training product development.

Training Business Area (TBA). A web-based training application that provides Air Force war fighters with global, real-time visibility into qualifications, certifications, and training status of communications professionals. TBA supports base, wing, and work center training management activities by automating business processes and capabilities to eliminate paper-based practices. The system centralizes management of training task data, provides user access to CFETPs/JQSs, and increases security through a single AF Portal log on. TBA replaced the Integrated Maintenance Data System (IMDS) as the mandated automated training tool for maintaining OJT records for communication and information personnel.

Training Capability. The capability of a training setting to provide training on specified requirements, based on the availability of resources.

Training Planning Team (TPT). Comprised of the same personnel as a U&TW, TPTs are more intimately involved in training development and the range of issues examined is greater than in the U&TW forum.

Training Requirements Analysis (TRA). A detailed analysis of tasks for a particular AFSC to be included in the training decision process.

Training Setting. The type of forum in which training is provided (formal resident school, on-the-job, field training, mobile training team, self-study, etc.).

Unit Type Code (UTC). A five-character alphanumeric code identifying a specific force package of personnel and/or equipment. The UTC is the means for linking logistics and manpower details within a unit type and is used to communicate force data. The UTC represents a wartime capability designed to fill a valid contingency requirement.

Upgrade Training. Training that leads to the award of a higher skill level.

Utilization and Training Pattern. A depiction of the training provided to, and the jobs performed by, personnel throughout their tenure within a career field or AFS. There are two types of patterns: 1) Current pattern, which is based on the training provided to incumbents and the jobs to which they have been and are assigned; and 2) Alternate pattern, which considers proposed changes in manpower, personnel, and training policies.

Utilization and Training Workshop (U&TW). A forum of the AFCFM, MAJCOM Functional Managers, subject matter experts (SME), and AETC training personnel that determines career ladder training requirements. This is an executive decision meeting following the Specialty Training Requirements Team meeting.

Wartime Tasks. Those tasks which must be taught when courses are accelerated during a wartime environment. In response to a wartime scenario, these tasks will be taught in the 3-level course in a streamlined training environment. These tasks are only for those career fields that still need them applied to their schoolhouse tasks.

Workflow. A series of steps necessary for the initiation, tracking, and delivery of services or outputs with the capability to cut across existing or future organizational boundaries. Furthermore, web-based workflow products allow electronic coordination, staffing, and task management of documents and files. They are relational to an electronic version of the Staff Summary Sheet (SSS) and other AF/DoD forms used for routing/collection of information. Automation provides the capability to suspense and track correspondence through the workflow process and provides action officers and document originators status on their packages. Provides users the capabilities to comply with structured electronic workflow processes and the flexibility to create/develop ad hoc workflow courses of actions. Future use of standardized EIM tools will enhance usability and eliminate legacy methods.

Section A - General Information

1. Purpose of the CFETP. This CFETP provides the information necessary for AFCFMs, MAJCOM Functional Managers (MFM), commanders, training managers, supervisors, and trainers to plan, develop, manage, and conduct an effective and efficient career field training program. The plan outlines the initial skills, upgrade, qualification, advanced, and proficiency training those individuals in AFSC 3D1X2 should receive in order to develop and progress throughout their careers. Initial skills training is the AFS specific training an individual receives upon entry into the AF or upon retraining into this specialty for award of the 3-skill level. This training is provided by the 338th Training Squadron (TRS) at Keesler AFB, MS. Upgrade training identifies the mandatory courses, task qualification requirements, Career Development Course (CDC) completion, and correspondence courses required for award of the 5-, 7-, or 9-skill level. Qualification training is actual hands-on task performance training designed to qualify an airman in a specific duty position. This training program occurs both during and after the upgrade training process. It is designed to provide the performance skills and knowledge required to do the job. Advanced training is formal specialty training used for selected airmen. Proficiency training is additional training, either in-residence or exportable advanced training courses, or on-the-job training provided to personnel to increase their skills and knowledge beyond the minimum required for upgrade. The CFETP has several purposes, some of which are:

1.1. Serves as a management tool to plan, manage, conduct, and evaluate a career field-training program. Also, ensures that established training is provided at the appropriate point in an individual's career.

1.2. Identifies task and knowledge training requirements for each skill level in the specialty and recommends education and training throughout each phase of an individual's career.

1.3. Lists training courses available in the specialty, identifies sources of training, and the training medium.

1.4. Identifies major resource constraints that impact implementation of the desired career field training program.

2. Use of the CFETP. The CFETP is maintained by the 3D1XX Air Force Career Field Manager (AFCFM), SAF/A6OD. MAJCOM FMs and AETC review the plan annually to ensure currency and accuracy and forward recommended changes to the AFCFM. Using the list of courses in Part II, they determine whether duplicate training exists and take steps to eliminate/prevent duplicate efforts. Career field training managers at all levels use the plan to ensure a comprehensive and cohesive training program is available for each individual in the career ladder.

2.1. AETC training personnel develop/revise formal resident and exportable training based upon requirements established by the users and documented in the STS. They also develop procurement and acquisition strategies for obtaining resources needed to provide the identified training.

2.2. MAJCOM FMs ensure their training programs complement the CFETP for mandatory initial skill and upgrade requirements. They also identify the needed AFJQSs/AFQTPs to document unique upgrade and continuation training requirements. Requirements are satisfied through OJT, resident training, contract training, or exportable courseware/courses. MAJCOM-developed training to support this AFSC must be included in this plan.

2.3. 81st TRSS/TSQ Qualification Training Flight (Q-Flight) personnel develop training packages (AFJQSs/AFQTPs) based on requests submitted by the MAJCOMs and according to the priorities assigned by the AFCFM.

2.4. Unit level training managers and supervisors manage and control progression through the career field by ensuring individuals complete the mandatory training requirements for upgrade specified in this plan and supplemented by their MAJCOM. The list of courses in Part II is used as a reference for planning continuation or career enhancement training.

2.5. Submit recommended improvements/corrections to the 338th TRS/TRR Training Manager.

3. Coordination and Approval of the CFETP. The AFCFM is the approval authority. MAJCOM representatives and AETC training personnel coordinate on the career field training requirements. The AETC training manager initiates an annual review of this document by AETC and MAJCOM functional managers to ensure the CFETP's currency and accuracy by using the list of courses in Part II to eliminate duplicate training.

Section B - Career Field Progression and Information

4. Specialty Description. This information supplements that presented in the AFECD.

4.1. Cyber Transport Apprentice/Journeyman/Craftsman (3D132/3D152/3D172).

4.1.1. Specialty Summary: Deploys, sustains, troubleshoots, and repairs standard voice, data, and video network infrastructure systems, IP detection systems and cryptographic equipment. Performs, coordinates, integrates, and supervises network design, configuration, operation, defense, restoration, and improvements. Analyzes capabilities and performance, identifies problems, and takes corrective action. Fabricates, terminates, and interconnects wiring and associated network infrastructure devices. Related DoD Occupational Subgroups: 115000 and 162200.

4.1.2. Duties and Responsibilities:

4.1.2.1. Provides mission critical voice, data, and video services. Installs, upgrades, replaces, configures, and maintains systems/circuits/IP-based intrusion detection systems that access military, Federal, and commercial networks. Manages infrastructure devices and systems using the latest approved software tools.

4.1.2.2. Deploys and operates expeditionary communications systems. Uses agile logistics support channels to sustain continuous network operations. Removes, repairs, and replaces assemblies and subassemblies to optimally sustain voice, data, and video networks.

4.1.2.3. Establishes priorities, maintains, tests, troubleshoots, and repairs network systems equipment and circuits utilizing tools and test equipment. Isolates malfunctions using diagnostic software, technical data, block diagrams, voltage and waveform measurements, and other tests requiring specialized test equipment.

4.1.2.4. Monitors performance of systems and circuits. Coordinates with coalition forces, DoD agencies, and other service providers to analyze and isolate performance faults and implement corrective actions. Checks equipment for serviceability and performs preventive maintenance. Isolates faults by coordinating with commercial service providers and depots to test system components and assemblies.

4.1.2.5. Maintains and administers network and circuit databases, records, and forms. Interprets sketches and layout drawings for placement of distribution systems. Coordinates request for service orders. Reviews, recommends, and implements changes to communications-computer systems installations records (CSIR), technical data, engineering drawings, and equipment wiring diagrams. Updates and verifies entries on system, facility, maintenance, and inspection records. Initiates, tracks, and maintains shipping, receiving, supply, and equipment documents.

4.1.2.6. Conducts periodic inspections of systems installations and repair activities. Interprets inspection reports and implements corrective actions, documents inspection and maintenance actions.

4.1.2.7. Reviews and maintains operational measurement reports and analyzes network utilization. Ensures equipment and components meet installation practice technical order and accepted commercial installation specifications.

4.1.2.8. Applies communications security programs to include physical, cryptographic, transmission, and emission security. Develops and ensures compliance with safety standards and instructions. Adheres to personnel reliability program requirements for priority level 1 facilities.

4.1.2.9. Manages, supervises, and performs planning and implementation activities. Manages implementation and project installation and ensures architecture, configuration, and integration conformity. Develops, plans, and integrates base communications systems. Serves as advisor at meetings for facility design, military construction programs and minor construction planning. Evaluates base comprehensive plan and civil engineering projects. Monitors status of base civil engineer work requests. Performs mission review with customers. Controls, manages, and monitors project milestones and funding from inception to completion. Determines adequacy and correctness of project packages and amendments. Monitors project status and completion actions. Manages and maintains system

installation records, files, and indexes. Evaluates contracts, wartime, support, contingency and exercise plans to determine impact on manpower, equipment, and systems.

4.2. Cyber Systems Superintendent (3D190).

4.2.1. Specialty Summary. Manages system analysis and design, programming, systems operation, and maintenance, resource management and security management. Directs activities for installing, maintaining, repairing, overhauling, deploying, and modifying cyberspace systems and equipment platforms to include: voice, data, video client devices, and network infrastructure systems, ground radar, radio, meteorological, navigation, satellite, intrusion detection, space systems, telemetry, microwave, and cryptographic. In addition, manages and directs network and electronic warfare operations in garrison and at deployed locations by performing duties to develop, sustain, and enhance network and electromagnetic capabilities to defend national interests from attack and to create effects in the cyberspace domain to achieve national objectives. Related DoD Occupational Subgroup: 110100.

4.2.2. Duties and Responsibilities.

4.2.2.1. Plans and organizes maintenance activities. Plans and supervises system installation and evaluates facilities layout and performance standards. Designs and develops organizational structures and determines equipment, training, and supplies required for systems implementation and support. Executes operational plans to ensure positive control of assigned forces. Evaluates operational readiness of communications equipment, network devices, sensors, intrusion detection, and related support equipment.

4.2.2.2. Directs activities responsible for system analysis and design, programming, operations and maintenance, security, systems management, technical support and resource management. Implements and interprets policies, directives and procedures.

4.2.2.3. Directs maintenance activities. Directs personnel employed in siting, deploying, inspecting, adjusting, removing, replacing, and repairing communications systems and related equipment. Prepares and analyzes reports encompassing siting, deploying, maintaining, installing, repairing and removing communications systems and related equipment. Coordinates activities and resolves common problems. Directs overhaul and repair of communications systems and related equipment. Ensures work standards are maintained. Determines extent and economy of repair, including disposition of malfunctioning equipment.

4.2.2.4. Inspects and evaluates maintenance activities for compliance with directives. Evaluates, rates and prepares reports on activity effectiveness. Recommends and implements corrective action for improved methods and procedures. Evaluates effectiveness of equipment usage, systems performance, customer service, supplies, and system scheduling, processing, and maintenance.

4.2.2.5. Supervises maintenance functions. Resolves problems with installing, maintaining, repairing, and overhauling systems and equipment. Checks systems and equipment for proper siting, installation, and serviceability. Establishes local maintenance procedures and policies. Performs research and development of new systems and equipment.

4.2.2.6. Establishes training requirements. Establishes training programs to meet local knowledge and certification requirements.

4.2.2.7. Plans, programs, and develops budget inputs to ensure resource availability for operational requirements.

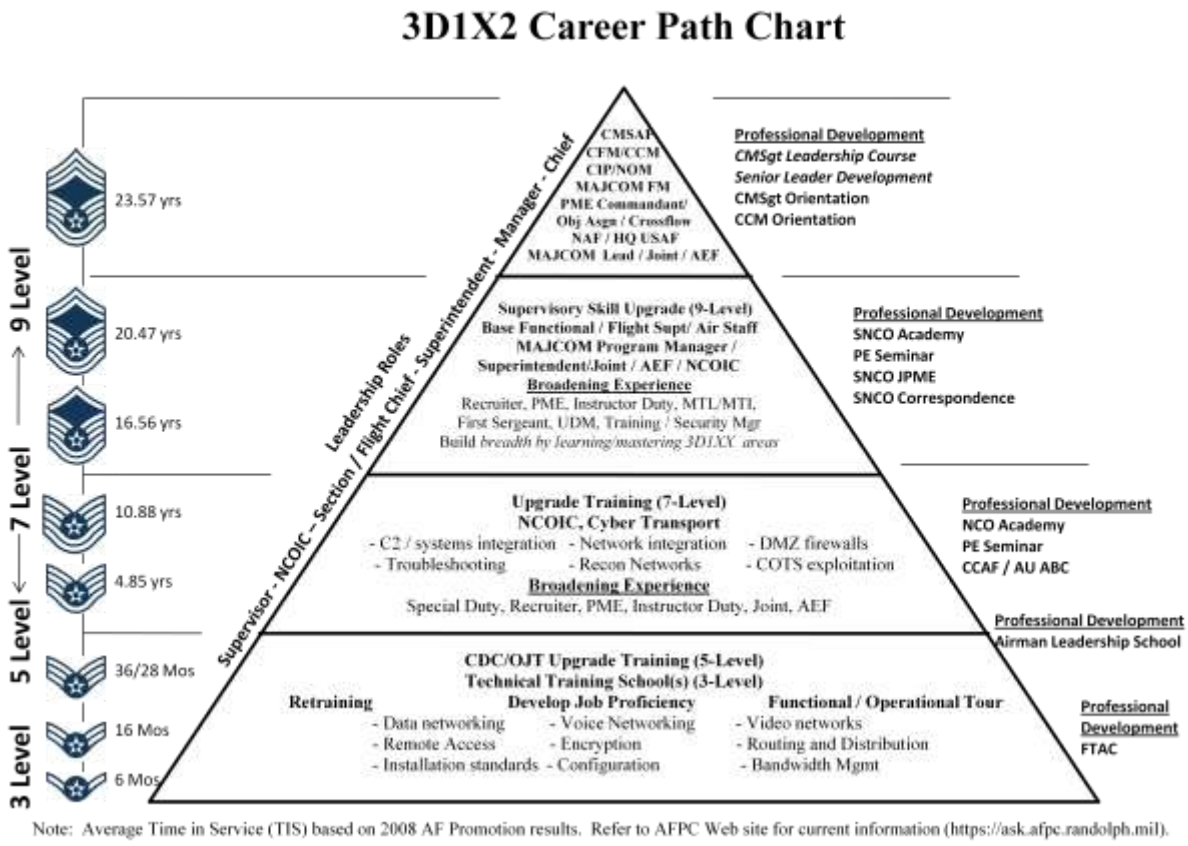
4.2.2.8. Manages plans, implementation, and development functions. Helps functional users define requirements. Supervises functional user requirements translation into automated systems capabilities. Organizes teams that use methodologies to meet mission requirements. Supervises test and evaluation efforts to determine performance. Organizes and participates in mission implementation and conversion. Ensures continued interface between functional users and programming and operations personnel. Ensures compliance with standards for systems documentation.

4.3. Chief Enlisted Manager. This specialty “caps” at the Chief Master Sergeant level with those specialties that came up through the Cyber Support Systems Specialist (3D1XX) career ladders. Personnel attaining the rank of CMSgt are assigned broad ranging duties in directing and managing diverse communication functions.

4.4. MAJCOM Functional Manager (MFM) for Cyber Systems. (AFI 36-2201, *Air Force Training Program*; AFI 36-2101, *Classifying Military Personnel (Officers and Airmen)*; *Air Force Enlisted Classification Directory*). Appointed by the MAJCOM Director of Communications (A6) or equivalent. Advises the MAJCOM/A6 and staff on 3D1XX utilization and training issues. Serves as the MAJCOM voting representative during career field Utilization and Training Workshops. Assists in gathering inputs and data to complete enlisted grade allocation for Career Progression Group (CPG) reviews. Provides guidance to subordinate units on 3D1XX personnel issues. Assists with the dissemination of information regarding Air Force and career field policies, plans, programs, and procedures to subordinate units. Assists in identifying qualified subject matter experts to help with the development of Specialty Knowledge Tests (SKT) and the Career Development Course (CDC). Acts as the primary MAJCOM reviewer on CDC training and classification waiver request packages. Coordinates on all MAJCOM 3D1XX staffing and manpower issues.

4.5. Air Force Career Field Manager (AFCFM) for the Cyber Systems Career Field. (AFPD 36-22, *Military Training*; AFI 36-2201, *Air Force Training Program*; AFI 36-2101, *Classifying Military Personnel (Officers and Airmen)*; Air Force Enlisted Classification Directory). Appointed by the Air Force Chief of Warfighting Integration and Chief Information Officer (SAF/CIO A6). Advisor to the SAF/CIO A6 on all matters affecting the Cyber Systems career fields. Communicates directly with MFMs and AETC Training Managers to disseminate Air Force and career field policies and program requirements. Ensures development, implementation, and maintenance of the CFETP. Serves as the chairperson for the U&TW and uses it as a forum to determine and manage career field education and training requirements, as they apply to mission needs. Possesses final authority to waive CFETP requirements, including CDCs. Assists AETC training managers and course supervisors with planning, developing, implementing, and maintaining all AFSC-specific training courses. Assists in the development of AFSC-related manpower standards.

5. Skill/Career Progression. Adequate training and timely progression from the apprentice to superintendent skill levels play an important role in the Air Force's ability to accomplish its mission. It is essential that everyone involved in training do their part to plan, manage and conduct an effective training program. The guidance provided in this part of the CFETP and the 3D1X2 Education and Training Path able will ensure individuals receive viable training at appropriate points in their careers.



Note: Average Time in Service (TIS) based on 2008 AF Promotion results. Refer to AFPC Web site for current information (https://ask.afpc.randolph.mil).

6. Training Decisions. This CFETP was developed to encapsulate an entire spectrum of training requirements for the Cyber Transport career field, using a building block approach (simple to complex). Included in this spectrum was the strategy of when, where, and how to meet the training requirements. The strategy must be apparent and affordable to reduce duplication of training and eliminate a disjointed approach to training.

6.1. Proficiency Training. This training is job qualification for an assigned duty position. Additional qualification training becomes necessary when personnel transfer to another duty position, the unit mission changes, a new personnel program comes on board, or any time changes in techniques or procedures occur.

6.1.1. The 81st TRSS/TSQ (Q-Flight) develops AFJQSs/AFQTPs to support tasks relating to communications-electronics and communications-computer systems, functions and duties. Completion of AFJQSs/AFQTPs is mandatory by duty position for personnel in upgrade or qualification training.

6.1.2. CDC development is restricted to six volumes, two hundred pages each. The first volumes will be common to all 3D1XX AFSCs, followed by the respective AFSC-specific volumes. The following table outlines 5-level CDC contents.

3DX5X	
VOLUME 1	Support to the Cyberspace Mission
VOLUME 2	Information Technology Concepts and Maintenance Principles
3D152	
VOLUME 1	Transport Principles
VOLUME 2	Network Concepts
VOLUME 3	Systems and Procedures

6.2. 7-Level Upgrade Training Requirements. No CDC or 7-level course currently exists for upgrade to 7-level.

6.3. Commercial Certifications. Below are some available commercial certifications for 3D1X2 technicians. An "X" in the DANTES column indicates that testing may be completed at the base education office. Tuition Assistance (TA) pays for only one certification during an entire career. See the local base education office for more information. The Department of Veterans Affairs (VA) has licensing and certification benefits that can be used, including the Montgomery GI Bill. Visit http://www.gibill.va.gov/pamphlets/lcweb.htm for more information.

Certifications	Criteria	Website	DANTES
Electronics Technician Association (ETA) • Associate (CET) • Journeyman (CET) Certified Network Computer Tech Certified Network System Tech Computer Competencies Computer Service Technician Certified Network Computer Tech Certified Network System Tech Web Specialist Electronics-Commerce Developer Telecommunications • Senior (CET) • Master (CET)	• Experience • Written Exam	http://www.eta-i.org/	X
National Association of Radio and Telecommunications Engineers (NARTE) • Junior Telecommunications Tech • Senior Telecommunications Tech • Master Telecommunications Tech	• Education • Experience • References • Written Exam	http://www.narte.org	X
Cisco Certifications • CCNA (Voice) Associate • CCIE (Voice) Expert • CCVP (Voice) Professional • Cisco IP Telephony Design • Cisco IP Telephony Support • Cisco IP Telephony Express • Cisco IP Telephony Operations • Cisco IP Contact Center Express • Cisco Unity Design	• Education • Experience • Written Exam	http://www.cisco.com	

• Cisco Unity Support • CCNP Professional • CCSP Professional			
Avaya Certifications • Avaya Certified Associate • Avaya Certified Specialist (Design or Implementation) • (ACE) Avaya Certified Expert (Design or Implementation)	• Education • Experience • Written Exam	www.avaya.com/certification	
Nortel Certifications • (NCDE) Nortel Certified Design Expert • (NCSE) Nortel Certified Support Expert • (NCDS) Nortel Certified Design • (NCSS) Nortel Certified Support • (NCTS) Nortel Certified Technology	• Education • Experience • Written Exam	http://nortelnetworks.com/	
Siemens Certifications • SCCP - Siemens Certified Communication Professional • SCCS - Siemens Certified Communication Specialist • SCCA - Siemens Certified Communication Associate	• Education • Experience • Written Exam	http://www.siemens.com	
IA Technical Level I** A+ Network +	• Education • Experience • Written Exam	IT E-Learning Website Certification exam voucher available from AFNIC	X
IA Technical Level II **IA Management Level I** Security +	• Education • Experience • Written Exam	IT E-Learning Website Certification exam voucher available from AFNIC	X
IA Technical Level III **IA Management Level II & Level III** CISSP	• Education • Experience • Written Exam	IT E-Learning Website Certification exam voucher available from AFNIC	X

* A+ certification will convert to an ETA Computer Service Technician certification.
** Net+ certification will convert to an ETA Certified Network Computer Technician certification.

7. Community College of the Air Force (CCAF) Academic Programs. Enrollment in CCAF occurs upon completion of basic military training. CCAF provides the opportunity for all enlisted members to obtain an Associate in Applied Science degree. In order to be awarded the CCAF degree, all academic requirements must be completed before the student separates from the Air Force, retires, or is commissioned as an officer. In addition to its associate's degree program, CCAF offers the following:

7.1. Occupational Instructor Certification. The College offers the Occupational Instructor Certification to instructors teaching full time in a CCAF affiliated school. To qualify, instructors must complete a 3 semester hour Instructor Methodology course, a 12 semester hour Teaching Internship, have two years teaching experience from date of Teaching Internship completion, hold an associate or higher degree, and be recommended by their commander/commandant.

7.2. The Electronic Systems Technology (4VHP) program applies to 3D1XX career fields.

7.2.1. Degree Requirements: Individuals must hold the 5-skill level at the time of program completion.

	Semester hours
Technical Education	24
Leadership, Management, and Military Studies	6
Physical Education	4
General Education	15
Program Electives	15
	Total 64

7.2.2. Technical Education (24 semester hours): A minimum of 12 semester hours of Technical Core subjects and courses must be applied and the remaining semester hours will be applied from Technical Core/Technical Elective subjects and courses.

7.2.3. Leadership, Management, and Military Studies (6 semester hours): Professional military education and/or civilian management courses. See CCAF General Catalog for application of civilian management courses.

7.2.4. Physical Education (4 semester hours): Satisfied upon completion of basic military training.

7.2.5. General Education (15 semester hours): Courses must meet the criteria for application of courses to the General Education requirement and be in agreement with the definitions of applicable General Education subjects/courses as outlined in the CCAF General Catalog.

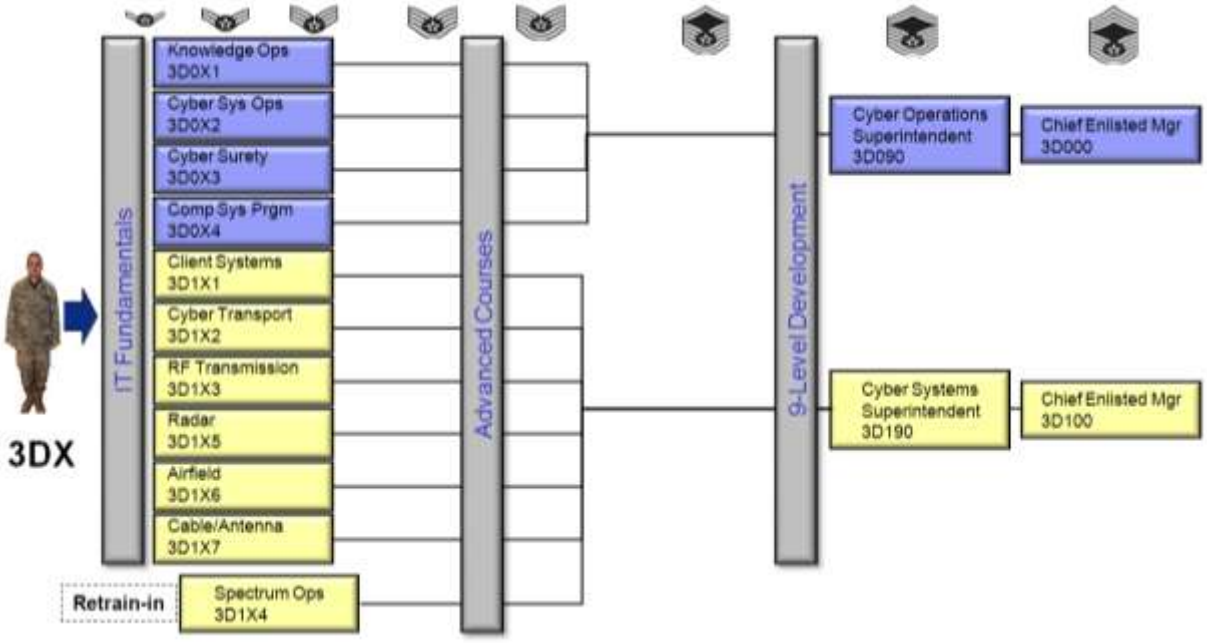
7.2.6. Program Elective (15 semester hours): Satisfied with applicable Technical Education; Leadership, Management, and Military Studies; or General Education courses, including natural science courses meeting General Education requirement application criteria. Six semester hours of CCAF degree applicable technical credit otherwise not applicable to this program may be applied.

7.3. Trade Skill Certification. When a CCAF student separates or retires, a trade skill certification is awarded for the primary occupational specialty. The College uses a competency based assessment process for trade skill certification at one of four proficiency levels: Apprentice, Journeyman, Craftsman (Supervisor), or Master Craftsman (Manager). All are transcribed on the CCAF transcript.

7.4. See the current CCAF General Catalog for details regarding the Associates of Applied Science in Electronic Systems Technology. The catalog is available at your education office, or from http://www.au.af.mil/au/ccaf/.

7.5. Additional off-duty education is highly encouraged. Individuals desiring to become an AETC instructor should be actively pursuing an associate degree. A degreed faculty is necessary to maintain CCAF's accreditation through the Southern Association of Colleges and Schools.

8. Career Field Path. The following summarizes career progression and personnel allocations across the career ladder. 3D0XX and 3D1XX personnel maintain their individual AFSC identifiers through the rank of MSgt. Upon promotion to SMSgt, 3D0X1/3D0X2/3D0X3/3D0X4 merge to become a 3D090; AFSCs 3D1X1/3D1X2/3D1X3/3D1X4/3D1X5/3D1X6/3D1X7 merge to become a 3D190. Specific demographic information is available on the Web at http://wwa.afpc.randolph.af.mil/demographics/.



3D1X2, CYBER TRANSPORT
EDUCATION AND TRAINING PATH

EDUCATION AND TRAINING REQUIREMENTS	AVERAGE SEW ON TIME AND COMMENTS
BASIC MILITARY TRAINING SCHOOL	
APPRENTICE TECHNICAL SCHOOL (3-SKILL LEVEL).....Mandatory	Amn..... 6 months
UPGRADE TO JOURNEYMAN (5-SKILL LEVEL) Minimum 12 months OJT (9 months for retrainees). Complete 5-Level CDCs. .....Mandatory Specific AFJQSs/AFQTPs for equipment at assigned location. .....Mandatory CS Management and Generic AFJQSs/AFQTPs for various unit level duties.....Mandatory AETC Supplemental training courses as determined by MAJCOM .....Optional Community College of the Air Force Associates Degree .....Optional	A1C ..... 16 months SrA ..... 3 years Earliest ..... 28 Months HYT ..... 10 years
AIRMAN LEADERSHIP SCHOOL (ALS) Attendance is limited to SSgt selectees or those attaining 48 months Total Active Federal Military Service (TAFMS) and who have not been selected for promotion to SSgt. Completion is mandatory before assuming the rank of SSgt. ANG/AFRC may complete by correspondence course.....Mandatory	TRAINER: Must meet trainer eligibility requirements as per AFI 36-2201
UPGRADE TO CRAFTSMAN (7-SKILL LEVEL) Minimum rank of SSgt. 12 months OJT (6 months for retrainees). Completion of 7-level CDCs, if available. Completion of AFQTP 3DXXX-232A, Communications and Information Work Center Supervisor's Handbook. Must be 7-level to sew on TSgt.....Mandatory CS Management and Generic AFJQSs/AFQTPs for various unit level duties.....Mandatory AETC Supplemental training courses as determined by MAJCOM .....Optional Community College of the Air Force Associates Degree .....Desired	SSgt ..... 4.85 years Earliest ..... 3 years HYT ..... 20 years TSgt..... 10.88 years Earliest ..... 5 years HYT ..... 22 years CERTIFIER: Must meet certifier eligibility requirements as per AFI 36-2201

3D1X2, CYBER TRANSPORT EDUCATION AND TRAINING PATH	
EDUCATION AND TRAINING REQUIREMENTS	AVERAGE SEW ON TIME AND COMMENTS
NONCOMMISSIONED OFFICER ACADEMY (NCOA). Completion is mandatory before assuming the rank of MSgt. .....Mandatory Active duty attendance is limited to TSgt, MSgt Selectee, or MSgt. ANG/AFRC SSgt or TSgt may attend in-residence or complete by correspondence course. Community College of the Air Force Associates Degree .....Highly Desired	MSgt..... 16.56 years Earliest ..... 8 years HYT ..... 24 years
USAF SENIOR NONCOMMISSIONED OFFICER ACADEMY (SNCOA) Attendance is limited to MSgt, SMSgt, or SMSgt Selectee. Completion is mandatory before assuming the rank of SMSgt.....Mandatory SNCOA Correspondence Course .....Optional ANG/AFRC may complete by correspondence course. ANG/AFRC MSgts may attend in-residence.....Mandatory	SMSgt ..... 20.47 years Earliest ..... 11 years HYT ..... 26 years
UPGRADE TO SUPERINTENDENT (9-SKILL LEVEL) Awarded upon sew on of SMSgt.....Mandatory CS Management and Generic AFJQSs/AFQTPs for various unit level duties.....Mandatory	
CHIEF MASTER SERGEANT LEADERSHIP COURSE (CLC) Attendance is limited to Chief Master Sergeants and Chief Master Sergeant selects. ……..……Mandatory	CMSgt ..... 23.57 years Earliest ..... 14 years HYT ..... 30 years

NOTE 1: Published sew-on times are Air Force averages. Refer to the Air Force Personnel Center's homepage to determine career field specific information: http://ask.afpc.randolph.af.mil/EProm/default.asp?prods3=5&prods2=2&prods1=1.

NOTE 2: See Part II, Sections C and D for a list of AFJQSs/AFQTPs and AETC supplemental training.

NOTE 3: All core/duty position tasks must be completed prior to upgrade.

Section C - Skill Level Training Requirements

9. Purpose. The various skill levels in the career field are defined in terms of tasks and knowledge requirements for each skill level in the Cyber Transport career field of the Cyber Support Systems career ladder. They are stated in broad, general terms and establish the standards of performance. Core tasks, knowledge items, and skill requirements for this specialty are identified in the STS, COL, CDCs, AFJQSs/AFQTPs, etc. Completion of the mandatory 3-level skill awarding course, CDCs, and applicable AFJQSs/AFQTPs define the Air Force core tasks for this specialty.

10. Specialty Qualification Requirements.

10.1. Apprentice (3-Level) Training.

KNOWLEDGE	Knowledge of electronic and network principles, information assurance, telephony, copper and fiber-optic transmission principles, cryptographic techniques, network system installation practices, project and circuit diagram interpretation, test equipment, special tools, and management practices is mandatory.
EDUCATION	Completion of high school is mandatory. Additional courses in mathematics, computer science, or information technologies is desirable. Network+ certification is desirable.
TRAINING	Completion of the Cyber Transport Systems Specialist course, E3ABR3D132 00AA (PDS Code ZIG) (See Part II, Section B for Course Objective List)
EXPERIENCE	None required
OTHER	For award and retention of AFSC 3D132, must maintain an Air Force Network License according to AFI 33-115, Vol 2, Licensing Network Users and Certifying Network Professional. Normal color vision as defined in AFI 48-123, Medical Examination and Standards. The ability to obtain a government license according to AFMAN 24-309, Vehicle Operations. Completion of a current Single Scope Background Investigation (SSBI) according to AFI 31-501, *Personnel Security Program Management* is mandatory. ***NOTE:*** Award of the 3-skill level without a completed SSBI is authorized provided an interim SSBI has been granted according to AFI 31-501.
IMPLEMENTATION	Attendance at the Apprentice Cyber Transport Systems Specialist course is mandatory for award of the 3-skill level unless waived by the AFCFM

10.2. Journeyman (5-Level) Training.

KNOWLEDGE	All 3D132 knowledge qualifications apply to the 3D152 requirements Completion of the 3D152 Career Development Courses
TRAINING	No mandatory AETC training courses are required for upgrade.
EXPERIENCE	Qualification in and possession of AFSC 3D132 Experience performing: installation, maintenance, and repair of voice, data, and video network infrastructure and cryptographic equipment. Completion of all STS core tasks Completion of applicable AFJQSs/AFQTPs Completion of all local tasks assigned for the duty position
OTHER	For award and retention of AFSC 3D152, must maintain an Air Force Network License according to AFI 33-115, Vol 2, Licensing Network Users and Certifying Network Professional. Completion of and eligibility for Single Scope Background Investigation (SSBI) according to AFI 31-501, *Personnel Security Program Management* is mandatory for award and retention of this skill level. Normal color vision as defined in AFI 48-123, *Medical Examinations and Standards*.
IMPLEMENTATION	Entry into formal journeyman upgrade training is accomplished once individuals are assigned to their first duty station. Qualification training is initiated anytime individuals are assigned duties for which they are not qualified. Use CDCs, CBTs, and AFJQSs/AFQTPs concurrently to obtain the necessary qualification for refresher and cross-utilization training.

10.3. Craftsman (7-Level) Training.

KNOWLEDGE	All 3D152 knowledge qualifications apply to the 3D172 requirements Completion of AFQTP 3DXXX-232A, Communications and Information Work Center Supervisor's Handbook
TRAINING	No mandatory AETC training courses are required for upgrade
EXPERIENCE	Qualification in and possession of AFSC 3D152 Experience performing or supervising installation, maintenance, and repair of voice, data, and video network infrastructure and cryptographic equipment. Completion of all STS core tasks Completion of applicable AFJQSs/AFQTPs Completion of all local tasks assigned for the duty position
OTHER	For award and retention of AFSC 3D172, must maintain an Air Force Network License according to AFI 33-115, Vol 2, Licensing Network Users and Certifying Network Professional. Completion of and eligibility for Single Scope Background Investigation (SSBI) according to AFI 31-501, *Personnel Security Program Management* is mandatory for award and retention of this skill level. Normal color vision as defined in AFI 48-123, *Medical Examinations and Standards*.
IMPLEMENTATION	Entry into OJT is initiated when individuals obtain the necessary rank and skill level. Qualification training is initiated anytime an individual is assigned duties for which they are not qualified. Use CDCs and AFJQSs/AFQTPs concurrently to obtain the necessary qualification for refresher and cross-utilization training.

10.4. Superintendent (9-Level) Training.

KNOWLEDGE	Techniques and procedures of systems analysis and design Interpretation of wiring and logic diagrams Project Management Software methodology System operation and maintenance System and equipment capability, capacity, and logic Performance measurement, security, and resource management
TRAINING	No mandatory AETC training courses are required for upgrade.
EXPERIENCE	Qualification in and possession of AFSC 3D17X Managing or directing functions such as installing, maintaining, repairing, or modifying the various systems and related equipment of the feeder specialties.
OTHER	For award and retention of AFSC 3D190, must maintain an Air Force Network License according to AFI 33-115, Vol 2, Licensing Network Users and Certifying Network Professional. Eligibility for a Secret security clearance according to AFI 31-501, *Personnel Security Program Management*, is mandatory for award and retention of this skill level.
IMPLEMENTATION	Entry into OJT is initiated when individuals are selected for the rank of SMSgt. Qualification training is initiated anytime individuals are assigned duties for which they are not qualified.

10.5. Training Sources.

10.5.1. AFSC specific training – 338th TRS, Keesler AFB, MS at https://etca.randolph.af.mil/.

10.5.2. CDCs 3D152 are available for upgrade purposes through the unit training manager. For individual qualification and cross-utilization training, CDCs are ordered through the unit training office.

10.5.3. AFJQSs/AFQTPs are Air Force publications and are mandatory for use by personnel in upgrade or qualification training. They are developed by the 81st TRSS/TSQ (Q-Flight), Keesler AFB, MS and may be downloaded from https://afkm.wpafb.af.mil/community/views/home.aspx?Filter=20946. Procedures for requesting development of AFJQSs/AFQTPs are contained in AFI 36-2233, *Air Force On-the-Job Training Products for Communications-Electronics Enlisted Specialty Training*. AFJQSs/AFQTPs are listed in Part II of this CFETP.

Section D - Resource Constraints

11. Purpose. This section identifies known resource constraints that preclude optimal/desired training from being developed or conducted, including information such as part numbers, national stock numbers, number of units required, cost, manpower, etc. Included are narrative explanations of each resource constraint, and an impact statement describing what effect each constraint has on training. Finally, this section includes actions required, OPR and target completion date. Resource constraints will be, at a minimum, reviewed and updated annually.

12. Apprentice (3-Level) Training.

12.1. Constraints: None

12.1.1. Impact. N/A

12.1.2. Resources Required. N/A

12.1.3. Action Required. N/A

12.1. 4 OPR/Target Completion Date. N/A

13. Journeyman (5-Level) Training.

13.1. Constraints: None.

13.1.1. Impact. N/A

13.1.2. Resources Required. N/A

13.1.3. Action Required. N/A

13.1.4. OPR/Target Completion Date. N/A

14. Craftsman (7-Level) Training.

14.1. Constraints: None.

14.1.1. Impact. N/A

14.1.2. Resources Required. N/A

14.1.3. Action Required. N/A

14.1.4. OPR/Target Completion Date. N/A

Section E - Transition Training Guide

There are currently no transition training requirements. This area is reserved.

PART II

Section A - Specialty Training Standard

1. Implementation. This STS will be used for technical training provided by AETC for the 3-level class beginning 20091109.

2. Purpose. As prescribed in AFI 36-2201 this STS:

2.1. Lists in column 1 (Task, Knowledge, and Technical Reference) the most common tasks, knowledge, and technical references (TR) necessary for airman to perform duties in the 3-, 5-, and 7-skill level. Column 2 (Core Tasks) identifies, by skill level, specialty-wide training requirements. NOTE: Core tasks are minimum task training requirements for upgrade.

2.2. Provides certification for OJT. Column 3 is used to record completion of tasks and knowledge training requirements. Use automated training management systems to document technician qualifications, if available. For initial certification or transcribing documentation complete the columns in accordance with AFI 36-2201.

2.3. Shows formal training and correspondence course requirements. Column 4 shows the proficiency to be demonstrated on the job by the graduate as a result of training on the task/knowledge and the career knowledge provided by the correspondence course. See the Air University Catalog maintained at http://www.au.af.mil/au/afiadl for current CDC listings.

2.4. Qualitative Requirements. Attachment 1 contains the proficiency code key used to indicate the level of training and knowledge provided by resident training and career development courses.

2.5. Becomes a job qualification standard (JQS) for on-the-job training when placed in AF Form 623, *Individual Training Record* folder and used according to AFI 36-2201.

2.6. Is a guide for development of promotion tests used in the Weighted Airman Promotion System (WAPS). Specialty Knowledge Tests (SKT) are developed at the USAF Occupational Measurement Squadron by senior NCOs with extensive practical experience in their career fields. The tests sample knowledge of STS subject matter areas judged by test development team members as most appropriate for promotion to higher grades. Questions are based upon study references listed in the WAPS catalog. Individual responsibilities are listed in chapter 1 of AFI 36-2605, *Air Force Military Personnel Testing System*. WAPS is not applicable to the Air National Guard or Air Reserve Forces.

3. Recommendations. Comments and recommendations are invited concerning the quality of AETC training. A Training Feedback Hotline has been installed for the supervisors' convenience. For a quick response to concerns, call our Training Feedback Hotline at DSN 597-4566, fax us at DSN 597-3790, or e-mail us at 81trg-tget@keesler.af.mil. Reference this STS and identify the specific area of concern (paragraph, training standard element, etc).

BY ORDER OF THE SECRETARY OF THE AIR FORCE

OFFICIAL

WILLIAM T. LORD, Lieutenant General, USAF
Chief of Warfighting Integration and
Chief Information Officer

Attachments:
1. IT Fundamentals Course Training Standard (CTS)
2. Specialty Training Standard (STS) 3D1X2

PREFACE

NOTE 1: Dashed items in this CTS are not part of the original CTS created at the March 2009 IT Fundamentals conference however, they are the specific objectives taught in the IT Fundamentals course designed to meet the CTS requirements.

NOTE 2: Unless otherwise stated, students may be allowed two assists from the instructor and still successfully achieve the proper level of proficiency. An instructor assist is anytime an instructor must intercede to provide guidance to a student which leads to a satisfactory completion of the objective or to prevent the student from continuing in a manner that will lead to an unsatisfactory conclusion, safety violation, or damage to equipment.

NOTE 3: All 3-level tasks will be trained if a wartime surge is ordered.

Proficiency Code Key		
	Scale Value	**Definition: The individual**
Task Performance Levels	1	Can do simple parts of the task. Needs to be told or shown how to do most of the task. (extremely limited)
	2	Can do most parts of the task. Needs only help on hardest parts. (partially proficient)
	3	Can do all parts of the task. Needs only a spot check of completed work. (competent)
	4	Can do the complete task quickly and accurately. Can tell or show others how to do the task. (highly proficient)
*Task Knowledge Levels	a	Can name parts, tools, and simple facts about the task. (nomenclature)
	b	Can determine step-by-step procedures for doing the task. (procedures)
	c	Can identify why and when the task must be done and why each step is needed. (operating principles)
	d	Can predict, isolate, and resolve problems about the task. (advanced theory)
**Subject Knowledge Levels	A	Can identify basic facts and terms about the subject. (facts)
	B	Can identify relationship of basic facts and state general principles about the subject. (principles)
	C	Can analyze facts and principles and draw conclusions about the subject. (analysis)
	D	Can evaluate conditions and make proper decisions about the subject. (evaluation)

Explanations

* A task knowledge scale value may be used alone or with a task performance scale value to define a level of knowledge for a specific task. (Example: b and 1b)

** A subject knowledge scale value is used alone to define a level of knowledge for a subject not directly related to any specific task, or for a subject common to several tasks. This mark is used alone instead of a scale value to show that no proficiency training is provided in the course or CDC.

X This mark is used alone in course columns to show that training is required but not given due to limitations in resources.

NOTE: All tasks and knowledge items shown with a proficiency code are trained during wartime.

	IT Fundamentals PROFICIENCY CODE
1. ELECTRONICS SUPPORT SUBJECTS	
1.1 Safety	B
1.2 First Aid	A
2. DIGITAL NUMBERING SYSTEMS (Internal Data Representation)	
2.1 Conversions	
2.1.1 Binary	B
2.1.2 Hexadecimal	B
2.1.3 Binary Coded Decimal	A
2.2 Calculate Hexadecimal Numbers	X
3. BASIC COMPUTER FUNDAMENTALS	
3.1 Communications/Network Protocols	
3.1.1 Connection Oriented Communication	A
3.1.2 Connectionless Oriented Communication	A
3.1.3 International Standards Organization (ISO) Open Systems Interconnect (OSI)Model	A
3.1.4 TCP/IP	A
3.1.5 Department of Defense (DoD) Standards Protocol	A
3.1.6 IPV4/IPV6	A
3.1.7 Ports (IP)	A
3.2 Network Theory/Components	
3.2.1 Components	
3.2.1.1 Component Principles	B
3.2.1.2 Central Processing Unit (CPU)	A
3.2.1.3 Computer memory	A
3.2.1.4 Input/output (I/O) Devices	A
3.2.1.5 Storage Devices	A
3.2.1.6 Peripherals (Printers, FAX, Scanners, etc)	A
3.2.2 Network Types	
3.2.2.1 Wired (LAN, WAN, MAN)	A
3.2.2.2 Wireless	A
3.2.2.3 Virtual Private Network (VPN)	A
3.2.2.4 Video Teleconference	A
3.2.2.5 Topologies (Star, Ring, Bus, Hybrid, etc)	A
3.3 Data Terminal Equipment/Data Communications Equipment (DTE/DCE)	
3.3.1 Modems	A
3.3.2 Converters	A
3.3.3 Gateways	A
3.3.4 Multiplexing	
3.3.4.1 Wave Division Multiplexing	A
3.3.4.2 Time Division Multiplexing	A
3.3.4.3 Switches	A
3.3.4.4 Multiplexers	A

	IT Fundamentals PROFICIENCY CODE
3.3.4.5 Bridges/Routers	A
3.3.4.6 Encryption/COMSEC Devices (Data and Voice)	A
3.3.4.7 Communications Mediums	A
3.4 Software	
3.4.1 Operating Systems (UNIX, Windows, LINUX, etc.)	A
3.4.2 Applications (Word, Excel, Power Point, Share Point, etc.)	A
3.4.3 Infectious and Malicious Software	A
4. CRYPTOLOGY (Bound & Unbound)	
4.1 Bulk Encryption	A
4.2 Information Encryption Techniques	A
4.3 Separation Requirements	A
5. NETWORK FAULT ISOLATION TECHNIQUES	
5.1 Network Error Detection	1a
5.2 Network Error Correction	1a
5.3 Network Flow Control	1a
5.4 Transmission Impairments	1a
5.5 Network Management Concepts and Responsibilities	B
6. CYBER SECURITY	
6.1 Cyber Vulnerabilities	A
6.2 Vulnerability Preventative Measures	A
6.3 Identity Management	A
6.4 Wireless Network Security	A
7. COMMUNICATIONS AND INFORMATION PROFESSIONALS	
7.1 Organizations	A
7.2 Communications Competencies	A
7.3 Expeditionary Communications	X
8. OPERATIONAL RISK MANAGEMENT (ORM) TR: AFIs 90-901, 91-301, 91-302; AFOSH STDs 91-50, 91-64, 91-501	
8.1 ORM	A
9. PUBLICATIONS AND DIRECTIVES TR: AFINDs 2, 5, 8; AFIs 33-Series; AFMAN 37-139	
9.1 Department of Defense (DoD)	X
9.2 Air Force	X
9.3 Commercial/Vendor publications	X
9.4 DISA Publications	X
9.5 Technical Orders (TO)	A
9.6 Standard Installation Practices Technical Order (SIPTO)	A
9.7 Enterprise Information Architecture (EIA)/ Telecommunications Industry Association (TIA)	A
9.8 Military Standard (MIL STD)	X

	IT Fundamentals PROFICIENCY CODE
10. LEGAL/ETHICS TR: USC TITLE 10, 18 and 50; Joint Information Doctrine (Joint Pub 3-13); AF Information Operations Doctrine 2-5; Health Insurance Portability and Accountability Act (HIPA)	
10.1 US Codes (e.g. Titles 10, 15, 18, 32, 50) (e.g. Constitutional Authority, legal aspects of rules of engagement, homeland defense, Posse Comitatus, US Charter Paradigm, Schmidt Analysis)	A
10.2 Rules of Engagement (ROE)	
10.2.1 Policy	A
10.2.2 Security Tools	A
10.2.3 Cyber Management Ethics	A
10.2.4 System Monitoring	A
10.3 Special Data Protection (i.e. sensitive personnel information)	A
11. C4I SECURITY TR: ACP 122; AFDIR 33-303; AFIs 33-110, 33-129, 33-206, 33-219, 33-332; AFKAG-1&2; AFMAN 33-326; AFSSI 5021; DISAC 310-90-1; DOD 5200.1-R	
11.1 Operations Security (OPSEC) TR: AFI 10-1101; AFPD 10-11	
11.1.1 Definition	X
11.1.2 Relationship of OPSEC to other security programs	X
11.1.3 Vulnerabilities	X
11.1.4 Critical Information	X
11.2 Information Security TR: AFI 31-401; AFPD 31-4, 33-2	
11.2.1 Information safeguards	
11.2.1.1 Unclassified	
11.2.1.1.1 Privacy Act (PA)	A
11.2.1.1.2 For Official Use Only (FOUO) TR: AFSSI 5009	A
11.2.1.1.3 Sensitive Unclassified	A
11.2.1.2 Classified	A
11.3 Communications Security (COMSEC) TR: AFIs 33-211, 33-212; AFPD 33-2; AFI 31-401; AFPD 31-4	
11.3.1 Definition	A
11.3.2 Vulnerabilities	A
11.3.3 Safeguarding Information	A
11.4 Emission Security (EMSEC) TR: AFI 33-203; AFPD 33-2	
11.4.1 Definition	A
11.4.2 Notifications	A
11.4.3 Vulnerabilities	A
11.4.4 Protected Distribution System (PDS)	A
11.5 Computer Security (COMPUSEC) TR: AFIs 33-202, 33-207; AFPD 33-2	
11.5.1 Definition	A
11.5.2 Vulnerabilities	A
11.6 Physical Security TR: AFI 31-101; AFPD 31-1	
11.6.1 Definition	A
11.6.2 Secure Area Access Management	X

	IT Fundamentals PROFICIENCY CODE
11.6.3 Facility Security Requirements	X
11.6.4 Classified Material Control	
11.6.4.1 Storage	A
11.6.4.2 Transport	A
11.6.4.3 Handling	A
11.6.4.4 Destruction	X
11.6.4.5 Classified Waste	X
11.7 Information Assurance TR: AFI 33-204	
11.7.1 Definition	A
11.7.2 Threats and Vulnerabilities	A
11.7.3 Protective Measures	A
11.8 Information Conditions (INFOCON)	A
12. AIR AND SPACE EXPEDITIONARY FORCE (AEF)	
12.1 Equipment (e.g. LOGDET)	X
12.2 Personnel (e.g. MANFOR)	X
13. ENTERPRISE SYSTEMS TR: AFI 13 Series	
13.1 Defense Information Systems Network (DISN)	A
13.2 Defense Switched Network (DSN)	A
13.3 Non-secure Internet Protocol Router Network (NIPRNET) TR: DISACs 370-P120-3, 310-P70-73, 310-P70-74, 310-P70-75	A
13.4 Secure Networks	
13.4.1 Secret Internet Protocol Router Network (SIPRNET)	A
13.4.2 Defense Red Switch Network (DRSN)	A
14. ORGANIZATIONAL STRUCTURE	
14.1 Communication Squadron	X
14.2 Combat Communications Squadrons	X
14.3 Expeditionary Communications Squadron	X
14.4 Air Force Network Operations (AFNETOPS)	X
14.5 Air Force Network Operations Center (AFNOC)	X
14.6 Integrated Network Operations Security Center (INOSC)	X
14.7 Enterprise Service Unit (ESU)	X
14.8 Area Processing Center (APC)	X
14.9 Enterprise Service Desk (ESD)	X
15. CYBER OPERATIONS	
15.1 Structure	A
15.2 Missions	
15.2.1 Offensive	A
15.2.2 Defensive	A
15.2.3 Exploitation	A
15.2.4 Other (e.g. Influence Operations (IFO), Electronic Warfare (EW))	A
15.3 Network Warfare Fundamentals	

	IT Fundamentals PROFICIENCY CODE
15.3.1 Control Systems (e.g. Supervisory Control and Data Acquisition (SCADA) networks)	A
15.3.2 Tactical Data Link (TADL) networks	A
15.3.3 Network Exploitation Capabilities	A
15.4 Cyber Capabilities	
15.4.1 Affects on adversary decision makers	A
15.4.2 Role of cyber operations in achieving military and national goals and objectives	A
15.4.3 Information Superiority	X
15.4.4 Role of Air Force Network Operations Center (AFNOC)	X
15.4.5 Role of Integrated-Network Operations and Security Centers (I-NOSCs)	X
15.4.6 Role of Network Control Center (NCC)	X
15.4.7 Role of an Air and Space Operations Center (AOC)	X
15.4.8 Role of Information Warfare Flight (IWF)	X
15.4.9 Ops Defensive Measures	A
15.4.10 Ops Capabilities	A
16. DIGITAL LOGIC CIRCUITS	
16.1 Theory	
16.1.1 Gates	B
16.1.2 Flip Flops	B
16.2. Digital to Analog (DA) and Analog to Digital (AD) Converter Theory	B
16.3 Metric Notation	
16.3.1 Calculate Powers of Ten	B
16.3.2 Electrical Prefixes	B
17. USE TEST EQUIPMENT	
17.1 Analog Multimeter	B
17.2 Digital Multimeter	2b
17.3 Oscilloscope	2b
17.4 Signal/Function Generator	2b
17.5 Line Tester	X
17.6 Electrostatic Discharge (ESD) Control	A
18. BASIC COMMUNICATIONS THEORY	
18.1 Fiber Optics	A
18.2 Transmission Lines	B
18.3 Data Bus	B
18.4 Antennas	B
18.5 Waveguides	A
18.6 Transmitters	
18.6.1 Frequency Modulation	B
18.6.2 Amplitude Modulation	B
18.7 Receivers	
18.7.1 Frequency Modulation	B

	IT Fundamentals PROFICIENCY CODE
18.7.2 Amplitude Modulation	B
18.8 Digital Communications	
18.8.1 Synchronous	A
18.8.2 Isochronous	A
18.8.3 Asynchronous	A
18.8.4 Signal Rate	A
18.8.5 Bit Count Integrity	A
18.8.6 Signal Formats	A
18.9 Modulation Techniques	
18.9.1 Amplitude Modulation (AM)	B
18.9.2 Frequency Modulation (FM)	B
18.9.3 Phase Modulation	B
18.9.4 DAMA	B
18.9.5 Frequency Hopping	A
18.9.6 Time – Division (CDMA and GSM)	A
18.10 Electromagnetic Effects (EMP/EMI)	B
18.11 AM Receiver Signals	
18.11.1 Measure Radio Frequency (RF)	1a
18.11.2 Measure Intermediate Frequency (IF)	1a
18.11.3 Monitor Audio Frequency (AF)	1a
18.11.4 Measure Local Oscillator (LO) Output	1a
19. TYPES OF WIRING/CABLING	
19.1 Assemble Solderless Connectors	
19.1.1 Crimped Connection	2b
19.1.2 Coaxial Connector	2b
19.1.3 Multipin Connector	2b
20. BASIC CIRCUITS	
20.1 Direct Current (DC)	
20.1.1 Theory	B
20.1.2 Calculations	B
20.2 Alternating Current (AC)	
20.2.1 Theory	B
20.2.2 Calculations	B
21. BASIC CIRCUIT COMPONENTS	
21.1 Resistors	
21.1.1 Theory	B
21.1.2 Color Code	B
21.1.3 Troubleshoot	2b
21.2 Inductors	
21.2.1 Theory	B
21.2.2 Troubleshoot	2b

	IT Fundamentals PROFICIENCY CODE
21.3 Capacitors	
21.3.1 Theory	B
21.3.2 Troubleshoot	2b
21.4 Resistive-Capacitive-Inductive (RCL) Circuits Theory	
21.4.1 Basic	A
21.4.2 Resonant	A
21.4.3 Frequency Sensitive Filter	A
22. POWER SUPPLY CIRCUITS	
22.1 Theory	
22.1.1 Rectifiers	B
22.1.2 Filters	B
22.1.3 Voltage Regulators	B
22.2 Troubleshoot Power Supply	2b
23. ELECTROMAGNETIC DEVICES	
23.1 Transformers	
23.1.1 Theory	B
23.1.2 Troubleshoot	2b
23.2 Relays and Solenoids	
23.2.1 Theory	A
23.2.2 Troubleshoot	-
24. SOLID STATE DEVICES	
24.1 Diodes	
24.1.1 Theory	B
24.1.2 Troubleshoot	2b
24.2 Bipolar Junction Transistors	
24.2.1 Theory	B
24.2.2 Troubleshoot	2b
24.3 Special Purpose Device Theory	
24.3.1 Zener Diode	B
24.3.2 Light Emitting Diode (LED)	A
24.3.3 Liquid Crystal Display (LCD)	A
24.3.4 Integrated Circuits (IC)	A
24.3.5 Field Effect Transistor (FET)	A
24.3.6 Operational Amplifiers	-
25. TRANSISTOR AMPLIFIER CIRCUITS	
25.1 Theory	B
25.2 Stabilization	A
25.3 Coupling	A
26. WAVE GENERATING CIRCUITS	
26.1 Theory	
26.1.1 Oscillators	A

	IT Fundamentals PROFICIENCY CODE
26.1.2 Multivibrators	A
26.1.3 Waveshaping Circuits	A

PREFACE

NOTE 1: Users are responsible for annotating technical references to identify current references pending STS revision. Locate current Air Force publications at:

DOD Issuances and OSD Administrative Instructions at http://www.dtic.mil/whs/directives/
Air Force publications at http://www.e-publishing.af.mil/.
AFSSIs at https://private.afca.af.mil/ip/
DISA Circulars and Instructions at http://www.disa.mil/main/about/publications.html
Technical Orders (TO) at https://www.my.af.mil/gcss-af61/ETIMS/index.jsp
Online Reference Ware and CBTs: https://www.my.af.mil/faf/FAF/fafHome.jsp (Under IT E-Learning)

NOTE 2: Knowledge and/or performance tasks are defined in the AFJQS. AFJQS items set the standard for qualification and certification and are mandatory for use in conjunction with this STS when applicable to the duty position.

NOTE 3: AFQTP 3DXXX-232A, Communications and Information Work Center Supervisor's Handbook is mandatory for upgrade to the 7-skill level in all 3DXXX career fields.

NOTE 4: All objectives are trained during wartime.

NOTE 5: Commanders, supervisors and trainers will use TBA to track and manage training for all 3DXXX personnel.

NOTE 6: When an AFJQS is loaded into TBA, AFJQS task numbering will vary from the STS. The numbering scheme is defined by your work center specific master training plan.

NOTE 7: Third person certification is not required for all Cyber Support Specialist personnel. However, members (to include civilians and contractors) assigned to crew positions are still required position certification through Standards-and-Evaluation processes in accordance AFI 13-302 volume 2*, AFCYBER Stan-Eval Program*

PROFICIENCY CODE KEY		
	SCALE VALUE	DEFINITION**: The individual**
Task Performance Levels	1	Can do simple parts of the task. Needs to be told or shown how to do most of the task. (EXTREMELY LIMITED)
	2	Can do most parts of the task. Needs help only on hardest parts. (PARTIALLY PROFICIENT)
	3	Can do all parts of the task. Needs only a spot check of completed work. (COMPETENT)
	4	Can do the complete task quickly and accurately. Can tell or show others how to do the task. (HIGHLY PROFICIENT)
***Task Knowledge Levels**	a	Can name parts, tools, and simple facts about the task. (NOMENCLATURE)
	b	Can determine step by step procedures for doing the task. (PROCEDURES)
	c	Can identify why and when the task must be done and why each step is needed. (OPERATING PRINCIPLES)
	d	Can predict, isolate, and resolve problems about the task. (ADVANCED THEORY)
****Subject Knowledge Levels**	A	Can identify basic facts and terms about the subject. (FACTS)
	B	Can identify relationship of basic facts and state general principles about the subject. (PRINCIPLES)
	C	Can analyze facts and principles and draw conclusions about the subject. (ANALYSIS)
	D	Can evaluate conditions and make proper decisions about the subject. (EVALUATION)

Explanations

* A task knowledge scale value may be used alone or with a task performance scale value to define a level of knowledge for a specific task. (Example: b and 1b)

** A subject knowledge scale value is used alone to define a level of knowledge for a subject not directly related to any specific task, or for a subject common to several tasks. This mark is used alone instead of a scale value to show that no proficiency training is provided in the course or CDC.

X This mark is used alone in course columns to show that training is required but not given due to limitations in resources.

NOTE: All tasks and knowledge items shown with a proficiency code are trained during wartime.

(-) When this code is used in the Core Task Column it indicates that the qualification is a local determination.

(5) When this code is used in the Core Task Column it indicates the CFM has mandated this task as a core 5-level requirement. The training to satisfy this requirement is either provided through OJT, CBTs, CDCs, or a combination.

(7) When this code is used in the Core Task Column it indicates the CFM has mandated this task as a core 7-level requirement. The training to satisfy this requirement is either provided through OJT, CBTs, CDCs, or a combination.

THIS BLOCK IS FOR IDENTIFICATION PURPOSES ONLY Personal Data – Privacy Act of 1974		
PRINTED NAME OF TRAINEE *(Last, First, Middle Initial)*	INITIALS *(Written)*	LAST 4 OF SSAN

PRINTED NAME OF TRAINER AND CERTIFYING OFFICIAL AND WRITTEN INITIALS	
N/I	N/I
N/I	N/I
N/I	N/I
N/I	N/I
N/I	N/I
N/I	N/I

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
1. CYBER TRANSPORT CAREER FIELD TR: AFH 33-337; AFIs 10-401, 33-115 Vol 1, 2, & 3; AFI 36-2101; 3D1X2 CFETP										
1.1. Structure	-						-	-	-	-
1.2. Progression within Air Force Specialty Code 3D1X2	-						-	-	-	-
1.3. Read CFETP 3D1X2, Part I	-						-	-	-	-
1.4. Air Force Specialty Code 3D1X2										
1.4.1. Explain duties of AFSC	5						A	A	-	-
1.4.2. Explain responsibilities of AFSC	5						A	B	-	-
1.4.3. AFSC core competencies	-						-	A	-	-
1.4.4. Qualifications	-						-	-	-	-
1.4.5. Customer relations	5						-	-	-	-
1.4.6. Associated career family AFSCs	5						-	A	-	-
2. OPERATIONAL RISK MANAGEMENT (ORM) TR: AFIs 90-901, 91-301, 91-302; AFOSH STDs 91-50, 91-64, 91-501										
2.1. ORM	-						-	A	-	-
2.2. AFOSH Standards for AFSC	5						A	A	-	-
2.3. Hazards of the AFSC	5						A	A	-	-
2.4. Practice Safety Precautions										
2.4.1. Maintenance actions	5						2b	-	-	-
2.4.2. Energized equipment	5						2b	-	-	-
2.4.3. Around High Voltage equipment	-						-	-	-	-
2.4.4. In Radio Frequency (RF) hazard environments TR: AFOSH Std 48-9, chap 2; TO 31Z-10-4; and command and local directives	-						-	-	-	-
2.4.5. Working with compressed gas cylinders TR: AFOSH Std 91-50, chap 2.15.-2.15.3; TO 42B5-1-2; and command and local directives	-						-	-	-	-
2.4.6. When handling hazardous materials TR: AFOSH Std 91-50, paras 2.13 and 2.14; AFOSH Std 91-68; TO 00-25-213	-						-	-	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
2.5. Safety and Personal Protective Equipment TR: AFOSH Std 91-50, ch 2; AFOSH Std 91-66; TO 00-25-245, and command and local directives										
2.5.1. Use	-						-	-	-	-
2.5.2. Maintain	-						-	-	-	-
2.5.3. Inspect	-						-	-	-	-
2.6. Perform General Housekeeping	5						-	-	-	-
2.7. Fire Protection Procedures TR: AFOSH Std 91-10, chap 2; AFOSH Std 91-66, chap 1.7-1.7.2.4; and command and local directives										
2.7.1. Describe classes of extinguishers	5						-	-	-	-
2.7.2. Describe fire protection procedures for electronic equipment	-						-	-	-	-
2.7.3. Describe fire protection procedures for critical communications facilities	-						-	-	-	-
2.8. Work Center Safety Program TR: AFI 91-202, chaps 1, 2.2. thru 2.3, and 4; AFI 91-301, sec B, paras 7-7.4, 12, 13, sec C, and attachments; AFQTP 3DXXX-232A; command and local directives										
2.8.1. Manage work center program	-						-	-	-	-
2.8.2. Conduct Job Safety Analysis	-						-	-	-	-
2.8.3. Document AF Form 55	-						-	-	-	-
2.8.4. Conduct inspections	-						-	-	-	-
3. PUBLICATIONS AND DIRECTIVES TR: AFIs 33-Series; AF Records Distribution System; http://www.e-publishing.af.mil/										
3.1 Department of Defense (DOD) / Joint	-						-	A	-	-
3.2. Air Force	-						-	A	-	-
3.3. Allied Communications Publications (ACP)	-						-	A	-	-
3.4. Commercial/Vendor Publications	-						-	A	-	-
3.5. DISA Publications	-						-	A	-	-
3.6. Technical Orders (TO)										

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
3.6.1. Describe Technical Order System TR: AFI 63-101; TO 00-5-1-WA-1; TO 00-5-18-WA-1	5						-	A	-	-
3.6.2. Locate TO numbers and titles in each TO index TR: TO 00-5-1-WA-1; TO 00-5-18-WA-1; https://www.my.af.mil/gcss-af61/ETIMS/index.jsp ; Applicable TO index	-						-	-	-	-
3.6.3. Identify Time Compliance Technical Orders (TCTO) procedures TR: AFCSM 21-568 (V2) https://www.my.af.mil/gcss-af61/ETIMS/index.jsp; AFI 33-150; TO 00-5-15-WA-1; and applicable TCTOs	-						-	-	-	-
3.6.4. Implement Time Compliance Technical Orders (TCTO) procedures and document completion TR: AFCSM 21-568 (V2) https://www.my.af.mil/gcss-af61/ETIMS/index.jsp; AFI 33-150; TO 00-5-15-WA-1; and applicable TCTOs	-						-	-	-	-
3.6.5. Prepare local work cards, checklists and job guides TR: TO 00-5-1-WA-1; and command and local directives	-						-	-	-	-
3.7. Standard Installation Practices Technical Order (SIPTO)	-						-	A	-	-
3.8. Enterprise Information Architecture (EIA)/ Telecommunications Industry Association (TIA)	-						-	A	-	-
3.9. Military Standard (MIL STD)	-						-	A	-	-
3.10. Use Publications When Performing Work	5						2b	-	-	-
4. LEGAL/ETHICS TR: AFDD 2-5, Health Insurance Portability and Accountability Act (HIPAA), http://www.dtic.mil/doctrine/new_pubs/jp3_13.pdf. Information Operations, USC TITLE 10, 18 and 50										
4.1. Identify and Explain US Codes (E.G. Titles 10, 15, 18, 32, 50) (E.G. Constitutional Authority, Legal Aspects of Rules of Engagement, Homeland Defense, Posse Comitatus, US Charter Paradigm, Schmidt Analysis)	-						-	A	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
4.2. Rules of Engagement (ROE)										
4.2.1. Policy	-						-	-	-	-
4.2.2. Security tools	-						-	-	-	-
4.2.3. Network Management Components	-						-	-	-	-
4.2.4. System Monitoring	-						-	-	-	-
4.3. Special Data Protection (E.G. Sensitive Personnel Information)	-						-	-	-	-
5. C4I SECURITY TR: ACP 122; AFIs 33-129, 33-138, 33-219, 33-332; AFKAG-1&2; AFMAN 33-326; DOD 5200.1-R										
5.1. Operations Security (OPSEC) TR: AFI 10-701; AFPD 10-7										
5.1.1. Definition	-						-	B	-	-
5.1.2. Background	-						-	-	-	-
5.1.3. Relationship of OPSEC to other security programs	-						-	B	-	-
5.1.4. Vulnerabilities	-						-	-	-	-
5.1.5. Critical information	-						-	-	-	-
5.2. Information Security TR: AFI 31-401; AFPD 31-4, 33-2										
5.2.1. Definition	-						-	B	-	-
5.2.2. Classification process	-						-	-	-	-
5.2.3. Declassification process	-						-	-	-	-
5.2.4. Information safeguards										
5.2.4.1. Privacy Act (PA)	-						-	A	-	-
5.2.4.2. For Official Use Only (FOUO)	-						-	A	-	-
5.2.4.3. Sensitive Unclassified	-						-	A	-	-
5.2.4.4. Classified	-						-	A	-	-
5.3. Communications Security (COMSEC) TR: AFIs 31-401, 33-201V2/V3; AFPDs 31-4, 33-2										
5.3.1. Definition	5						-	B	-	-
5.3.2. Vulnerabilities	5						-	B	-	-
5.3.3. Safeguarding information	5						-	B	-	-
5.3.4. Identify insecurities	5						-	B	-	-
5.3.5. Report insecurities	5						-	A	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
5.3.6. Protect COMSEC material TR: AFI 33-201(V2), sec E, paras 20.1 thru 20.6.1 and local COMSEC directives										
5.3.6.1. Store COMSEC material equipment TR: AFI 33-201(V2), sec E, paras19.1 thru 19.5 and local COMSEC directives	-						-	-	-	-
5.3.6.2. Store Controlled Cryptographic equipment TR: AFI 33-201(V2), sec E, paras19.1 thru 19.5 and local COMSEC directives	-						-	-	-	-
5.3.7. Inventory COMSEC documents and/or equipment TR: AFI 33-201(V2), sec F, para 21.1 thru 21.14 and local COMSEC directives	-						-	-	-	-
5.3.8. Page check COMSEC documents TR: AFI 33-201(V2), sec F, paras 22.1 thru 22.3.4 and local COMSEC directives	-						-	-	-	-
5.3.9. Post amendments to COMSEC documents TR: AFI 33-201(V2), sec F, paras 23.1 thru 23.2 and local COMSEC directives	-						-	-	-	-
5.3.10. Explain procedures for destroying cryptographic equipment and materials TR: AFI 33-201(V2), sec G, paras 27 thru 32 and local directives	-						-	-	-	-
5.3.11. Explain how to report physical, personnel, and cryptographic security violations TR: AFI 33-201(V2/V3), and local directives	-						-	-	-	-
5.3.12. Protect Major Command/Field Operating Agency (MAJCOM/FOA) Mission Critical Information TR: AFI 10-701; AFPD 10-7; MAJCOM/FOA directives; and local directives	-						-	-	-	-
5.4. Emission Security (EMSEC) TR: AFI 33-203V1; AFPD 33-2										
5.4.1. Definition	-						-	B	-	-
5.4.2. Notifications	-						-	B	-	-
5.4.3. Vulnerabilities	-						-	B	-	-
5.4.4. Protected Distribution System (PDS)	-						-	B	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
5.5. Computer Security (COMPUSEC) TR: AFIs 33-200, 33-207; AFPD 33-2										
5.5.1. Definition	5						-	B	-	-
5.5.2. Vulnerabilities	5						-	B	-	-
5.5.3. Processing classified information	5						-	B	-	-
5.5.4. Identify insecurities	5						-	B	-	-
5.5.5. Report insecurities	5						-	A	-	-
5.6. Physical Security TR: AFI 31-101; AFPD 31-1										
5.6.1. Definition	5						-	A	-	-
5.6.2. Secure area access management	-						-	B	-	-
5.6.3. Facility security requirements	-						-	B	-	-
5.6.4. Identify violations procedures	-						-	-	-	-
5.6.5. Report violations procedures	5						-	-	-	-
5.6.6. Classified material control										
5.6.6.1. Storage	5						-	B	-	-
5.6.6.2. Transport	5						-	B	-	-
5.6.6.3. Handling	5						-	B	-	-
5.6.6.4. Destruction	-						-	B	-	-
5.6.6.5. Classified waste	-						-	B	-	-
5.6.6.6. Marking	-						-	B	-	-
5.7. Information Assurance TR: AFI 33-200										
5.7.1. Definition	-						-	B	-	-
5.7.2. Certification and accreditation process	-						-	A	-	-
5.8. Information Conditions (INFOCON)	5						-	B	-	-
6. IT REQUIREMENTS TR: AFI 33-401, AFTTP 3-2.22										
6.1. Lifecycle	-						-	A	-	-
6.2. Procurement	-						-	A	-	-
6.3. Integrated Technical Reference Model (ITRM)	-						-	A	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
7. MANAGEMENT OF PROCESSES TR: AFIs 33-104, 33-150, 36-2201, 63-124, 63-501, 63-1101, 64-102; AFPD 36-5, 64-1; Federal Acquisition Regulation (FAR) Part 39; OMB Circular A-130; TO 00-33A-1001-WA-1										
7.1. Management Policies										
7.1.1. Equipment Readiness	-						-	-	-	-
7.1.2. Staffing and Utilization	-						-	-	-	-
7.1.3. Training										
7.1.3.1. Document Training	5						-	-	-	-
7.1.3.2. Evaluate newly assigned personnel and identify individual training requirements TR: Applicable AFI 36-2201; AFI 33-150; AFQTP 3DXXX-232A; Applicable CFETP; Unit Training Manual	5						-	-	-	-
7.1.3.3. Conduct On-the-Job Training (OJT) TR: AFI 36-2201; AFQTP 3DXXX-232A; and local directives	5						-	-	-	-
7.1.3.4. Evaluate quality of OJT and provide trainee feedback TR: AFI 36-2201; AFQTP3DXXX-232A	5						-	-	-	-
7.1.3.5. Develop Master Training Plan	7						-	-	-	-
7.1.4. Quality Assurance (QA)										
7.1.4.1. Perform self inspection	5						-	-	-	-
7.1.4.2. Evaluate Equipment	7						-	-	-	-
7.1.4.3. Document results	5						-	-	-	-
7.1.5. Automated Information Systems (AIS)										
7.1.5.1. Integrated Maintenance Data System	-						-	-	-	-
7.1.5.2. Remedy	-						-	-	-	-
7.1.5.3. Asset Inventory Management System	-						-	-	-	-
7.1.5.4. Training Business Area	-						-	-	-	-
7.1.6. Communications Focal Point TR: AFJQS 3D1XX-201F	-						-	-	-	-
7.1.7. Logistics Support										

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
7.1.7.1. Submit Price Challenges TR: AFMAN 23-110, vol 7, part 4	-						-	-	-	-
7.1.7.2. Report Item and Packaging Discrepancies TR: AFJMAN 23-215	-						-	-	-	-
7.1.7.3. Report Uniform Source, Maintenance and Recoverability Code and Air Force Expendability, Recoverability, Reparability Category Code Discrepancies TR: AFJI 21-106; TOs 00-20-3-WA-1, chap 1; 00-25-195-WA-1	-						-	-	-	-
7.1.7.4. Submit Deficiency Reports TR: TO 00-35D-54-WA-1, chap 3	-						-	-	-	-
7.1.7.5. Research and identify part and stock numbers TR: Applicable equipment TOs, Federal Logistics (FEDLOG) program	-						-	-	-	-
7.1.7.6. Maintain supply listings and reports (D04, D18, M30, D23, or equivalent Core Automated Maintenance System [CAMS]) TR: AFMAN 23-110 (V2), part 13, chap 5	-						-	-	-	-
7.1.7.7. Use/maintain bench stock TR: AFMAN 23-110 (V2), part 2, chap 25; part 13, chap 3; and local directives	-						-	-	-	-
7.1.7.8. Use/maintain supply point stock TR: AFMAN 23-110 (V2), part 2, chap 24, attch 24A4 and 24A5; AFMAN 23-110 (V2) part 13, chap 3; TO 00-20-3-WA-1, chap 3										
7.1.7.8.1. Request and validate adjusted stock levels (special levels) TR: AFMAN 23-110 (V2), part 2, chap 19; AFMAN 23-110 (V2) part 13, chap 3	-						-	-	-	-
7.1.7.9. Describe procedures for recovering and turning in precious metals TR: AFMAN 23-110 (V2), part 13, chap 1.15; and local directives	-						-	-	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
7.1.7.10. Process and control repair cycle assets Due In For Maintenance (DIFM) TR: AFMAN 23-110 (V2), part 2, chap 24; AFMAN 23-110 (V2), part 13, chap 6; TO 00-20-3-WA-1, chaps 2 and 3, and Table 2-1	-						-	-	-	-
7.1.7.11. Initiate Not Repairable This Station (NRTS) actions TR: AFI 33-150; TO 00-20-3-WA-1, chaps 3 and 6, and Table 1-1	-						-	-	-	-
7.1.7.12. Initiate contract repair (AF Form 9) TR: AFI 64-102; AFMAN 23-110 (V2), part 13, chap 8, sec 8H; Command and local directives	-						-	-	-	-
7.1.7.13. Maintain Custodian Authorization/Custody Receipt Listing (CA/CRL) equipment accounts TR: AFMAN 23-110 (V2), part 13, chap 8, secs 8C and 8F; and local directives	-						-	-	-	-
7.1.8. Production Work Centers TR: AFQTP 3DXXX-232A, AFQTP 3DXXX-200D										
7.1.8.1. Report Status	5						-	-	-	-
7.1.8.2. Document actions	5						-	-	-	-
7.1.8.3. Develop work schedules	7						-	-	-	-
7.1.8.4. Report Publication Errors and Form Deficiencies TR: AFI 33-360	-						-	-	-	-
7.1.8.5. Report Technical Order Improvements TR: TO 00-5-1-WA-1	5						-	-	-	-
7.1.9. Deployed Processes	-						-	-	-	-
7.1.10. Modification Management										
7.1.10.1. Control Configuration	7						-	-	-	-
7.1.10.2. Initiate Modification Proposals TR: AFI 63-1101	-						-	-	-	-
7.1.11. Cyberspace infrastructure planning system										
7.1.11.1. CSIRs	-						-	A	-	-
7.1.11.2. CIPS CVC tool	-						-	-	-	-
7.1.12. Administrative Contract Management TR: AFQTP 3DXXX-213R										
7.1.12.1. Types of Contracts										

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
7.1.12.1.1. Time and material	7						-	-	-	-
7.1.12.1.2. Firm fixed price	7						-	-	-	-
7.1.12.1.3. Sole source	7						-	-	-	-
7.1.12.1.4. Performance based	7						-	-	-	-
7.1.12.1.5. Indefinite delivery indefinite quantity	-						-	-	-	-
7.1.12.1.6. Blanket Purchase Agreement (e.g. AFWAY, PCOE)	7						-	-	-	-
7.1.12.2. Responsibilities										
7.1.12.2.1. Quality Assurance Program Coordinator	-						-	-	-	-
7.1.12.2.2. Functional director/commander	-						-	-	-	-
7.1.12.2.3. Quality assurance personnel	-						-	-	-	-
7.1.12.2.4. Unit contract monitor	-						-	-	-	-
7.2. Information Management TR: AFH 33-337; AFIs 33-119, 33-129, 33-321; AFMANs 33-128, 33-326; 37-104 (will convert to AFI 33-396); AFPD 33-3										
7.2.1. Electronic Communications	-						-	A	-	-
7.2.2. Internet policy familiarization	-						-	A	-	-
7.2.3. E-mail Management										
7.2.3.1. Policy	-						-	A	-	-
7.2.3.2. E-mail etiquette	-						-	A	-	-
7.3. Air Force Portal TR: AF EIM CONOP; AF EIM Strategy; AF Portal Publishing Training Site; Air Force Portal Content Publishing Training Guides										
7.3.1. Program objectives	-						-	A	-	-
7.3.2. Roles	-						-	A	-	-
7.3.3. Enterprise Information Management (EIM)										
7.3.3.1. Definition	-						-	A	-	-
7.3.3.2. Capabilities	-						-	A	-	-
7.3.4. Collaborative Tools										
7.3.4.1. Community of Practice (CoP)	-						-	A	-	-
7.3.4.2. Defense Connect Online (DCO)	-						-	A	-	-
7.3.4.3. SharePoint	-						-	-	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
7.4. Records Management Program TR: AFIs 33-322, 33-364; AFMANs 37-104 (will convert to AFI 33-396), 33-363; AFPDs 33-1, 33-3; AF Electronic Records Management Solution Guide; AF Records Information Management System (AFRIMS)										
7.4.1. Program objectives	-						-	A	-	-
7.4.2. Definition of official records	-						-	B	-	-
7.4.3. Responsibilities	-						-	A	-	-
7.4.4. Electronic Records (E-Records) Environment Management										
7.4.4.1. Business rules for electronic files (e-files)	-						-	B	-	-
7.4.5. Files Maintenance Disposition Plan (Paper/Electronic)										
7.4.5.1. File and retrieve documents	-						-	B	-	-
7.4.5.2. Cutoff procedures (paper /electronic)	-						-	B	-	-
7.4.6. Managing deployed records	-						-	A	-	-
7.4.7. Destruction	-						-	B	-	-
7.5. Functional Management TR: AFECD; AFIs 33-101, 36-2201, 36-2845, 38-101; AFMAN 37-104; AFQTP 3D0X1-225E ; 3D1X2 CFETP										
7.5.1. Responsibilities										
7.5.1.1. AF Career Field Manager	7						-	A	-	-
7.5.1.2. MAJCOM Functional Manager	7						-	A	-	-
7.5.1.3. Base Functional Manager	7						-	A	-	-
7.5.2. Resource Management										
7.5.2.1. Manpower products	-						-	-	-	-
7.5.2.2. Manpower studies	-						-	-	-	-
7.5.2.3. Authorization /Organizational Change Request process	-						-	-	-	-
7.5.2.4. Manpower standards	-						-	-	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
7.5.2.5. Allocating personnel	-						-	-	-	-
7.5.2.6. Job rotations	-						-	A	-	-
7.5.3. Comm and Info awards program	-						-	-	-	-
7.5.4. Workshops										
7.5.4.1. Utilization and Training Workshop (U&TW)	7						-	A	-	-
7.5.4.2. Training Advisory Groups	-						-	A	-	-
7.5.4.3. Occupational survey	-						-	A	-	-
8. EXPEDITIONARY COMMUNICATIONS & INFORMATION (C&I) CONCEPTS TR: AFDD 2-4; AFIs 10-401, 10-403, 21-109, 33-201V2, AFMAN 23-110										
8.1. Describe Joint Task Force (JTF) Organizational Structure										
8.1.1. Unified/Combatant Commands (COCOM)	-						-	-	-	-
8.1.2. Air Force Component Commander (AFCC)	-						-	-	-	-
8.1.3. Joint Force Air Component Commander (JFACC)	-						-	-	-	-
8.1.4. Commander Air Force Forces (COMAFFOR)	-						-	-	-	-
8.2. Describe the Concepts of Aerospace Expeditionary Force (AEF) Employment										
8.2.1. AEF Tempo Banding	-						-	A	-	-
8.2.2. Enabler Forces	-						-	-	-	-
8.2.3. Deployment Planning and Execution	-						-	-	-	-
8.3. Describe the following Unit Type Code (UTC) processes										
8.3.1. Defined	-						-	-	-	-
8.3.2. Development										
8.3.2.1. Designed Operational Capability (DOC)	-						-	-	-	-
8.3.2.2. AEF UTCs										
8.3.2.2.1. Unit Type Code	5						-	A	-	-
8.3.2.2.2. Equipment (e.g. LOGDET)	7						-	A	-	-
8.3.2.2.3. Personnel (e.g. MANFOR)	7						-	A	-	-
8.4. Posturing	7						-	-	-	-
8.5. Sourcing	7						-	-	-	-
8.6. Readiness Status Reporting										

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
8.6.1. Status of Resources and Training (SORTS)	-						-	-	-	-
8.6.2. AEF UTC Reporting Tool (ART)	7						-	-	-	-
8.7. Understand Force Module communications support concept										
8.7.1. Open the Air Base	7						-	-	-	-
8.7.2. Command and Control	7						-	-	-	-
8.7.3. Establish the Air Base	7						-	-	-	-
8.7.4. Generate the Mission	7						-	-	-	-
8.7.5. Operate the Air Base	7						-	-	-	-
8.7.6. Robust the Air Base	7						-	-	-	-
8.8. Deployment Procedures										
8.8.1. Develop load plan	-						-	-	-	-
8.8.2. Explain pallet build-up procedures	-						-	-	-	-
8.8.3. Explain hazardous cargo preparation	-						-	-	-	-
8.8.4. Prepare documentation	-						-	-	-	-
8.8.5. Determine site selection requirements	-						-	-	-	-
8.8.6. Determine site preparation requirements	-						-	-	-	-
8.8.7. Determine site configuration requirements	-						-	-	-	-
8.8.8. Determine requirements for constructing deployment site utility grids	-						-	-	-	-
9. TYPICAL DEPLOYABLE COMM MISSIONS TR: AFPAM 10-100, MAJCOM and Local Directives										
9.1. Deployable COMM missions										
9.1.1.Contingency Response Groups	-						-	A	-	-
9.1.2. Theater Deployable Communications (TDC)	-						-	A	-	-
9.1.3. Deployable Air Traffic Control Systems (DATCALS)	-						-	A	-	-
9.1.4. Engineering Installation	-						-	A	-	-
9.1.5. C4ISR Platforms										
9.1.5.1. Air Operations Centers	-						-	A	-	-
9.1.5.2. Ground Theater Air Control Systems (Air Control Squadrons)	-						-	A	-	-
9.1.5.3. Air Support Operations Centers	-						-	A	-	-
9.1.5.4. Unmanned Aerospace Systems (UAS)										

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
9.1.5.4.1. Global Hawk	-						-	A	-	-
9.1.5.4.2. Predator/Reaper	-						-	A	-	-
9.1.5.5. Installation Notification and Warning System	-						-	A	-	-
9.1.5.6. American Forces Network (AFN)	-						-	A	-	-
9.1.5.7. Aeromedical Evacuation Support	-						-	A	-	-
10. ENTERPRISE SYSTEMS TR: AFI 13 Series, CJCSI 6211.02C, Joint Pub 6-0										
10.1. Combat Information Transport System (CITS)	-						-	A	-	-
10.2. Global Command and Control Systems (GCCS)	-						-	A	-	-
10.3. Global Combat Support Systems (GCSS)	-						-	A	-	-
10.4. Global Information Grid (GIG)	-						-	A	-	-
10.5. Defense Information Systems Network (DISN)	-						-	B	-	-
10.6. Defense Switched Network (DSN)	-						-	B	-	-
10.7. Non-secure Internet Protocol Router Network (NIPRNET)	-						-	B	-	-
10.8. Secure Networks										
10.8.1. Secret Internet Protocol Router Network (SIPRNET)	-						-	B	-	-
10.8.2. Defense Red Switch Network (DRSN)	-						-	A	-	-
10.8.3. Joint World-wide Intelligence Communications System (JWICS)	-						-	A	-	-
10.8.4. National Security Agency (NSA) Net	-						-	A	-	-
10.8.5. Global Broadcast Service (GBS)	-						-	A	-	-
10.8.6. Global Positioning System (GPS)	-						-	A	-	-
10.8.7. Distributed Common Ground System (DCGS)	-						-	A	-	-
10.8.8. Battle Control System – Fixed	-						-	A	-	-
10.8.9. Theater Battle Management Core Systems (TBMCS)	-						-	A	-	-
10.9. Nuclear Command and Control Systems TR: AFQTP 3DXXX-232A										
10.9.1. National Military Command Center (NMCC)	-						-	A	-	-
10.9.2. Global High Frequency Network	-						-	A	-	-
10.9.3. Strategic Automated Command and Control System (SACCS)	-						-	A	-	-

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		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
10.9.4. Military Strategic and Tactical Relay (MILSTAR) Satellite	-						-	-	-	-
10.9.5. Minimum Essential Emergency Communications Network (MEECN)	-						-	-	-	-
10.10. Space Systems Elements TR: AFQTP 3DXXX-232A										
10.10.1. Air Force Satellite Control Network (AFSCN)	-						-	-	-	-
10.10.2. Defense Meteorological Satellite Program (DMSP)	-						-	-	-	-
10.11. DoD Teleports & Standard Tactical Entry Points TR: AFQTP 3DXXX-232A	-						-	A	-	-
11. ORGANIZATIONAL STRUCTURE TR: AFPD 13-3; AFI 33-115V1, 38-101										
11.1. Communication Squadron	-						-	A	-	-
11.2. Combat Communications Squadron	-						-	A	-	-
11.3. Expeditionary Communications Squadron	-						-	A	-	-
11.4. Air Force Network Operations (AFNETOPS)										
11.4.1. Air Force Network Operations Center (AFNOC)	-						-	B	-	-
11.4.2. Integrated Network Operations Security Center (INOSC)	-						-	B	-	-
11.4.3. Enterprise Service Unit (ESU)	-						-	B	-	-
11.4.4. Area Processing Center (APC)	-						-	B	-	-
11.4.5. Enterprise Service Desk (ESD)	-						-	B	-	-
12. CYBER OPERATIONS TR: AFDD 3-12										
12.1. Structure	-						-	A	-	-
12.2. Missions										
12.2.1. Offensive	-						-	A	-	-
12.2.2. Defensive	-						-	A	-	-
12.2.3. Exploitation	-						-	A	-	
12.2.4. Other (e.g. Influence Operations (IFO), Electronic Warfare (EW))	-						-	A	-	-
12.3. Network Warfare Fundamentals										
12.3.1. Control Systems (e.g. Supervisory Control and Data Acquisition (SCADA) networks)	-						-	A	-	-

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		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
12.3.2. Identify Tactical Data Link (TADL) networks	-						-	A	-	-
12.3.3. Network Exploitation Capabilities	-						-	A	-	-
12.4. Cyber Capabilities										
12.4.1. Affects on adversary decision makers	-						-	B	-	-
12.4.2. Role of cyber operations in achieving military and national goals and objectives	-						-	B	-	-
12.4.3. Information Superiority	-						-	B	-	-
12.4.4. Air Force Network Operations Center (AFNOC) Role	5						-	B	-	-
12.4.5. Air and Space Operations Center (AOC) Role	5						-	B	-	-
12.4.6. Checklists, Standard Operating Instructions (SOP), Tactics, Techniques and Procedures (TTP)	-						-	B	-	-
13. BASIC COMPUTER FUNDAMENTALS TR: IT E-Learning, Cyber Support Training, 3DXXX Basic Computer Fundamentals										
13.1. Communications/Network Protocols										
13.1.1. Connection Oriented Communication	-						-	B	-	-
13.1.2. Connectionless Oriented Communication	-						-	B	-	-
13.1.3. International Standards Organization (ISO) Open Systems Interconnect (OSI) Model	5						-	B	-	-
13.1.4. TCP/IP	5						-	B	-	-
13.1.5. DoD Standards Protocol	-						-	A	-	-
13.1.6. IPv4/IPV6	5						-	B	-	-
13.1.7. Ports (IP)	5						-	A	-	-
13.2. Network Theory/Components										
13.2.1. Components										
13.2.1.1. Component Principles	5						-	B	-	-
13.2.1.2. Central Processing Unit (CPU)	5						-	A	-	-
13.2.1.3 Computer memory	5						-	A	-	-
13.2.1.4 Input/output (I/O) Devices	5						-	A	-	-
13.2.1.5 Storage Devices	5						-	A	-	-

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		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
13.2.1.6 Peripherals (Printers, FAX, Scanners, etc)	5						-	A	-	-
13.2.2 Network Types										
13.2.2.1 Wired (LAN, WAN, MAN)	5						-	A	-	-
13.2.2.2 Wireless	5						-	A	-	-
13.2.2.3 Virtual Private Network (VPN)	5						-	A	-	-
13.2.2.4 Topologies (Star, Ring, Bus, hybrid, etc)	5						-	A	-	-
13.2.2.5 Theory and operation of switching devices (e.g. ATM, ISDN, GIG-E)	5						-	A	-	-
13.3. Network Devices										
13.3.1. Modems	-						-	A	-	-
13.3.2. Switches	-						-	A	-	-
13.3.3. Multiplexers	-						-	A	-	-
13.3.4. Bridges/routers	-						-	A	-	-
13.3.5 Encryption Devices	-						-	A	-	-
13.4. Communications Mediums	-						-	A	-	-
13.5 LAN Architecture	-						-	A	-	-
13.6 Software										
13.6.1. Operating Systems (e.g. UNIX, Windows, LINUX)	5						-	A	-	-
13.6.2. Applications (e.g. Word, Excel, Power Point)	5						-	A	-	-
13.6.3. Infectious and malicious Software	5						-	B	-	-
14. COUNTER-CHEMICAL, BIOLOGICAL, RADIOLOGICAL and NUCLEAR TR: AFPAM 10-100, 10-2501										
14.1 Describe threats										
14.1.1. Chemical	-						-	-	-	-
14.1.2. Biological	-						-	-	-	-
14.1.3. Nuclear	-						-	-	-	-
14.1.4. Radiological	-						-	-	-	-
14.2. Warning Systems, Signals and Reporting Procedures										
14.2.1. Joint and Coalition	-						-	-	-	-
14.2.2. Air Force	-						-	-	-	-
14.2.3. Respond to alarm conditions										
14.2.3.1. Identify and prioritize mission/service restoration	-						-	-	-	-

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14.2.3.2. Post-attack personnel accountability	-						-	-	-	-
14.2.3.3. Post-attack reconnaissance	-						-	-	-	-
14.2.3.4. Identify and mark CBRNE to include unexploded ordinance	-						-	-	-	-
14.2.3.5. Report suspicious activities	-						-	-	-	-
14.3. Mission Oriented Protective Postures										
14.3.1. Describe	-						-	-	-	-
14.3.2. Implement	-						-	-	-	-
14.4. Individual Protective Equipment & Personal Protective Equipment (IPE/PPE)										
14.4.1 Requirements and Limitations	-						-	-	-	-
14.4.2. Ground Crew Ensemble										
14.4.2.1. Inspect and maintain	-						-	-	-	-
14.4.2.2. Wear	-						-	-	-	-
14.4.2.3. Perform critical mission tasks	-						-	-	-	-
14.4.2.4. Execute work-rest cycles and hydration standards	-						-	-	-	-
14.4.2.5. Perform self aid and buddy care	-						-	-	-	-
14.4.2.6. Perform contaminated personnel movement	-						-	-	-	-
14.4.2.7. Perform decontamination procedures	-						-	-	-	-
15. SECURITY+ CERTIFICATION TR: IT E-learning, Security+ Training Track										
15.1. Systems Security										
15.1.1. Differentiate among system security threats	-						B	-	-	-
15.1.2. Hardware and peripheral security risks	-						B	-	-	-
15.1.3. Operating System hardening practices and procedures (sever/workstation security)	-						c	-	-	-
15.1.4. Establish procedures for application security	-						b	-	-	-
15.1.5. Apply security applications procedures	-						b	-	-	-
15.1.6. Virtualization technology applications	-						B	-	-	-
15.2. Network Infrastructure										

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
15.2.1. Threats and mitigation techniques (ports and protocols)	-						B	-	-	-
15.2.2. Network design elements and components	-						B	-	-	-
15.2.3. Determine Network tool usage to facilitate network security	-						C	-	-	-
15.2.4. Network tools to facilitate network security	-						a	-	-	-
15.2.5. Network Devices vulnerabilities and mitigations	-						B	-	-	-
15.2.6. Transmission Media vulnerabilities and mitigations	-						B	-	-	-
15.2.7. Wireless networking vulnerabilities and mitigations	-						B	-	-	-
15.3. Access Control										
15.3.1. Industry best practices for access control methods	-						B	-	-	-
15.3.2. Common access control models	-						B	-	-	-
15.3.3. Organize users (& computers) into security groups and roles while determining rights and privileges	-						C	-	-	-
15.3.4. Apply security controls to file and print resources	-						b	-	-	-
15.3.5. Compare and apply logical access control methods	-						c	-	-	-
15.3.6. Authentication models and components	-						B	-	-	-
15.3.7. Authentication models and components deployment	-						B	-	-	-
15.3.8. Authentication and identification	-						B	-	-	-
15.3.9. Physical access security methods	-						B	-	-	-
15.4. Assessments and audits										
15.4.1. Perform risk assessment and implement risk mitigation	-						b	-	-	-
15.4.2. Perform vulnerability assessments using common tools	-						b	-	-	-
15.4.3. Purpose of Penetration testing and vulnerability scanning	-						B	-	-	-
15.4.4. Use monitoring tools on systems/networks and detect security related anomalies	-						B	-	-	-
15.4.5. Comparison of monitoring methodologies	-						C	-	-	-

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		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
15.4.6. Apply proper logging procedures and evaluate results	-						c	-	-	-
15.4.7. Auditing procedures for system security settings	-						b	-	-	-
15.5. Cryptography										
15.5.1. General Cryptography Concepts	-						B	-	-	-
15.5.2. Basic hashing concept application	-						B	-	-	-
15.5.3. Basic encryption application concept	-						B	-	-	-
15.5.4. Protocols	-						B	-	-	-
15.5.5. Public Key Cryptography Concepts	-						B	-	-	-
15.5.6. Certificate Management	-						B	-	-	-
15.6. Organizational Security										
15.6.1. Redundancy Planning Components	-						B	-	-	-
15.6.2. Apply disaster recovery procedures	-						b	-	-	-
15.6.3. Execute appropriate incident response procedures	-						b	-	-	-
15.6.4. Legislation and organizational policies	-						B	-	-	-
15.6.5. Environmental controls	-						B	-	-	-
15.6.6. Social engineering risks	-						B	-	-	-
16. AIR FORCE COMPUTER BASED TRAINING (Note 1) TR: https://www.my.af.mil/faf/FAF/fafHome.jsp (Under IT E-Learning)										
16.1. 3D1XX Common Fundamentals Training Tracks.										
16.1.1. Introduction to Telecommunications (72111_ENG).	5						-	-	-	-
16.1.2. Introduction to Signals and Signal Transmission (84650 ENG).	5						-	-	-	-
16.1.3. Introduction to Communications Methods and Equipment (110725 ENG).	5						-	-	-	-
16.1.4. CompTIA Network+ 2009: Network Fundamentals (cs_ctnt_a01_it_enus)	5						-	-	-	-
16.1.5. Techniques for Improved Time Management (pd_01_a02_bs_enus)	5						-	-	-	-
16.1.6. CompTIA Network+ 2009: Wide Area Networks (cs_ctnt_a06_it_enus)	5						-	-	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
16.1.7. Project Management Overview (proj_05_a02_bs_enus)	7						-	-	-	-
16.1.8. Project Management Process Groups (proj_05_a03_bs_enus)	7						-	-	-	-
16.1.9. Integrated Initiation and Planning (proj_06_a01_bs_enus)	7						-	-	-	-
16.1.10. Integrated Project Execution, Monitoring, and Control (proj_06_a02_bs_enus)	7						-	-	-	-
16.1.11. Integrated Project Change Control and Close (proj_06_a03_bs_enus)	7						-	-	-	-
16.1.12. Risk Management Planning (proj_13_a01_bs_enus)	7						-	-	-	-
16.2. 3D1X2 Cyber Transport Systems Track.										
16.2.1. Establishing a Baseline (118128_eng)	5						-	-	-	-
16.2.2. Determining an Effective Troubleshooting Strategy (118129_eng)	5						-	-	-	-
16.2.3. Addressing Problems at the Physical and Data-link Layers (118130_eng)	5						-	-	-	-
16.2.4. Resolving Problems at the Network Layer (118131_eng)	7						-	-	-	-
16.2.5. Resolving Problems at the Transport and Application Layers (118132_eng)	-						-	-	-	-
16.2.6. Implementing Switching in the Network (119265_eng)	-						-	-	-	-
16.2.7. Configuring VLANs and VTP (119266_eng)	-						-	-	-	-
16.2.8. Implementing Spanning Tree Protocol (119267_eng)	-						-	-	-	-
16.2.9. Enhancing Spanning Tree Protocol (119268_eng)	-						-	-	-	-
16.2.10. Implementing Multilayer Switching in the Network (119269_eng)	-						-	-	-	-
16.2.11. Improving Availability on Multilayer Switched Networks (119270_eng)	-						-	-	-	-
16.2.12. Examining Cisco AVVID Services and Applications (119271_eng)	-						-	-	-	-

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16.2.13. Implementing QoS in Multilayer Switched Networks (119272_eng)	-						-	-	-	-
16.2.14. Optimizing and Securing Multilayer Switched Networks (119273_eng)	-						-	-	-	-
16.2.15. Routing Protocols (119556_eng)	5						-	-	-	-
16.2.16. Designing Cisco IP Telephony Solutions (121375_eng)	-						-	-	-	-
16.2.17. Configuring Cisco Catalyst Switch Operations (124874_eng)	-						-	-	-	-
16.2.18. Routing in Cisco Networks (124875_eng)	-						-	-	-	-
16.2.19. Implementing Routing Protocols on Cisco Networks (124876_eng)	-						-	-	-	-
16.2.20. Managing IP Traffic on Cisco Networks (124877_eng)	-						-	-	-	-
16.2.21. Extending a Cisco Network to a WAN (124878_eng)	-						-	-	-	-
16.2.22. Completing ISDN Calls on Cisco Networks (125065_eng)	-						-	-	-	-
16.2.23. Network Discovery and Neighbor Device Connections (125489_eng)	-						-	-	-	-
16.2.24. Cisco Internetwork Troubleshooting - Introduction (40504_eng)	-						-	-	-	-
16.2.25. Applying Cisco Troubleshooting Tools (40509_eng)	-						-	-	-	-
16.2.26. Diagnosing and Correcting Campus Problems in a Cisco Internetwork (40513_eng)	-						-	-	-	-
16.2.27. Diagnosing and Correcting Switch and VLAN Problems in a Cisco Internetwork (40517_eng)	-						-	-	-	-
16.2.28. Diagnosing and Correcting WAN Problems in a Cisco Internetwork (40522_eng)	-						-	-	-	-
16.2.29. Telecommunications Essentials (72123_eng)	5						-	-	-	-
16.2.30. Computer Telephony Integration (73383_eng)	5						-	-	-	-
16.2.31. Introduction to ISDN (74051_eng)	5						-	-	-	-
16.2.32. ISDN Protocols (74052_eng)	5						-	-	-	-
16.2.33. Digital Subscriber Line (74054_eng)	-						-	-	-	-

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16.2.34. LDAP Fundamentals (85776_eng)	-						-	-	-	-
16.2.35. Intro to IPv6 (80284_eng)	5						-	-	-	-
17. TEST EQUIPMENT TR: TO 33K-1-100, Applicable test equipment technical orders										
17.1. Identify Principles, Capabilities, Limitations and Perform Equipment Maintenance Using the Following Test Equipment:										
17.1.1. Oscilloscope	5						-	A	-	-
17.1.2. Multimeter	5						-	A	-	-
17.1.3. Optical Time Domain Reflectometer	-						A	A	-	-
17.1.4. Time Domain Reflectometer	-						A	A	-	-
17.1.5. Bit Error Rate Test Set	-						2b	A	-	-
17.1.6. Network Analyzer	5						2b	A	-	-
17.1.7. Spectrum Analyzer	-						-	-	-	-
17.1.8. Protocol analyzer (e.g. sniffer)	-						A	A	-	-
17.1.9. Built-in test equipment	-						-	-	-	-
17.1.10. Breakout box	-						2b	A	-	-
17.1.11. Function Generator	-						-	-	-	-
17.1.12. Audio Oscillator	-						-	-	-	-
17.1.13. Earth Ground Tester	-						-	-	-	-
17.1.14. Frequency Generator	-						-	-	-	-
17.1.15. Waveform Monitor/Vector Scope	-						-	-	-	-
17.1.16. Audio Test Sets	-						-	-	-	-
18. SPECIALIZED TOOLS TR: Applicable Technical Publications										
18.1. Impact Tool.	5						A	-	-	-
18.2. Amphenol Tool.	-						A	-	-	-
18.3. Analog Handset Telephone Test Set.	-						A	-	-	-
18.4. ISDN Handset Telephone Test Set.	-						A	-	-	-
18.5. Telephone Tone Generator.	-						A	-	-	-
18.6. Inductive Amplifier.	-						A	-	-	-
18.7. Lan Tester	-						-	-	-	-
18.8. Impedance Tool	-						-	-	-	-
18.9. Tone Generator	-						-	-	-	-

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		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
18.10. Light Source	-						-	-	-	-
18.11. Use:										
18.11.1. Impact tool.	5						-	-	-	-
18.11.2. Amphenol tool.	-						-	-	-	-
18.11.3. Analog handset telephone test set.	-						-	-	-	-
18.11.4. ISDN handset telephone test set.	-						-	-	-	-
18.11.5. Telephone tone generator.	-						-	-	-	-
18.11.6. Inductive amplifier.	-						-	-	-	-
18.11.7. Lan Tester	-						-	-	-	-
18.11.8. Impedance Tool	-						-	-	-	-
18.11.9 Tone Generator	-						-	-	-	-
18.11.10. Light Source	-						-	-	-	-
18.11.11. Fault Locator	-						-	-	-	-
18.11.12. Fusion Splicer	-						-	-	-	-
18.11.13. Modular Splicing System	-						-	-	-	-
18.11.14. Fiber Optic Source and Meter	-						-	-	-	-
19. STANDARD MAINTENANCE PRACTICES. TR: AFI 32-1065;; MIL-STD 2000A, American Public Works Association Policy and American National St; TOs 00-25-234, 31-10-7, 31-10-11, 31-10-13, 31-10-24, 31-141-1 volume 1, and 31W3 10-20										
19.1. State Facts Related to the Following Practices:										
19.1.1. Installation.	5						-	A	-	-
19.1.2. Configuration.	-						-	A	-	-
19.1.3. Interconnection.	5						-	A	-	-
19.1.4. Inspection.	-						-	A	-	-
19.2. Marking and Identifying Underground Utilities.	-						-	-	-	-
19.3. EMSEC Suppression Techniques.	-						-	B	-	-
19.4. Cable Labeling and Installation Documentation.	-						-	-	-	-
19.5. Wire Color-Coding Standards.	5						A	B	-	-
19.6. Fiber Optics Installation Concepts.	-						-	A	-	-
19.7. Explain Land Line Concepts.										

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
19.7.1. Copper cables.	-						B	B	-	-
19.7.2. Coaxial cables.	-						-	A	-	-
19.7.3. Fiber optic cable.	-						B	B	-	-
19.7.4. Interfacing considerations (e.g. TRI-TAC, Pinouts, signal format)	-						A	B	-	-
19.8. Concepts of:										
19.8.1. Grounding.	-						A	A	-	-
19.8.2. Bonding.	-						A	A	-	-
19.8.3. Shielding.	-						A	A	-	-
19.8.4. Lightning protection.	-						A	A	-	-
19.9. Electrostatic Discharge TR: AFQTP3DXXX-202A Electrostatic Discharge Handbook										
19.9.1. Principles	5						A	A	-	-
19.9.2. Concepts	5						-	A	-	-
19.9.3. Handling, Packaging and Storing	5						-	-	-	-
19.10. Equipment Grounding and Lightning Protection										
19.10.1. Install	-						-	-	-	-
19.10.2. Remove	-						-	-	-	-
19.10.3. Perform inspection and maintenance	5						-	-	-	-
19.11 Equipment Familiarization										
19.11.1 Locate Elements										
19.11.1.1 Alphanumerics	-						-	-	-	-
19.11.1.2 Visual Inspection	-						-	-	-	-
19.12 Basic Troubleshooting Techniques	-						-	-	-	-
20. INFORMATION PROTECTION (IP) OPERATIONS TR: ACP 122; AFH 31-602; AFIs, 10-701, 33-102, 33-115; Vol I, II, & III, 33-202, 33-203, 33-204, 33-207, 33-332; AFPD 31-2; AFTTP 3-1.36(S)Classified										
20.1. Rules of Engagement (ROE)	-						-	-	-	-
20.2. Identification and Authentication	-						A	A	-	-
20.3. Remanence Security	-						A	A	-	-
20.4. Certification and Accreditation	-						-	A	-	-
20.5. Event Response										

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
20.5.1. Perform Incident/Event Reporting TR: AFI 33-138	-						-	-	-	-
20.5.2. Implement Incident Response	-						A	-	-	-
20.6. Security Patch Implementation.	-						-	-	-	-
20.7. Malicious Logic Protection Devices (E.G. Anti-Virus, SMTP Relay, MIME Filters).	-						-	-	-	-
20.8. Defense in-Depth TR: AFDD 2-5; AFI 10-2001; AFTTP 3-1.36(S)(Classified) CJCSM 6510.01 (enclosure B)										
20.8.1. Concept	5						A	-	-	-
20.8.2. Steps	-						A	-	-	-
20.9. Information Insurance/Net Defense (IA/NetD)										
20.9.1. Boundary protection	-						A	B	-	-
20.9.2. Intrusion detection	-						A	B	-	-
20.9.3. Misuse detection	-						A	B	-	-
20.9.4. Internal control	-						A	B	-	-
20.9.5. Access preservation	-						A	B	-	-
20.9.6. Authentication	-						A	B	-	-
20.9.7. Encryption	-						A	B	-	-
20.9.8. Security tools (e.g. firewalls, TCP Wrappers)										
20.9.8.1. Terminal Area System (TAS)	-						-	-	-	-
20.9.8.2. Sight Protector (CITS)	-						-	-	-	-
20.9.8.3. Internet Security Scanner (ISS)	-						A	B	-	-
20.9.8.4. Automated Security Incident Management System (ASIM)	-						A	B	-	-
20.9.8.5. VLMS (CITS)	-						-	-	-	-
20.9.8.6. Enterprise Security Manager (ESM)	-						-	A	-	-
20.9.8.7. Intruder Alert (ITA)	-						A	A	-	-
20.9.8.8. Network management components	-						A	-	-	-
20.9.8.9. System Monitoring	-						A	-	-	-
20.9.8.10. Firewalls										
20.9.8.10.1. IP Firewalls	-						A	B	-	-
20.9.8.10.2. TDM Firewalls	-						A	B	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
21. NETWORKING FUNDAMENTALS TR: AFDIR 33-303; DISAC 300-205-9; EIA/TIA 568A/B; MIL STD 208-154A; TOs 31-1-201-1, 31-1-201-2, 31-1-201-5										
21.1. Network Management Functions										
21.1.1. Fault	-						B	B	-	-
21.1.2. Configuration	-						B	B	-	-
21.1.3. Performance	-						B	B	-	-
21.1.4. Accounting	-						B	B	-	-
21.1.5. Security	-						B	B	-	-
21.2. Topologies										
21.2.1. Ring	-						-	-	-	-
21.2.2. Bus	-						B	-	-	-
21.2.3. Star	-						B	-	-	-
21.2.4. Hybrid	-						-	-	-	-
21.3. Network Protocols										
21.3.1. Switched	-						B	B	-	-
21.3.2. Routed	-						B	B	-	-
21.3.3. Routing	-						B	B	-	-
21.3.4. Connection oriented (TCP)	-						B	-	-	-
21.3.5. Connectionless (UDP)	-						B	-	-	-
21.4. Standards										
21.4.1. Commercial (e.g. IEEE, EIA, NIST)	-						B	-	-	-
21.4.2. Military	-						B	-	-	-
21.4.3. International (e.g. ITU, ISO (7498-4), CEPT, ETSI)	-						B	-	-	-
21.5. Network Concepts										
21.5.1. Data network (host-to-host, client/server, peer-to-peer)	-						B	B	-	-
21.5.2. IP Addressing										
21.5.2.1. IPv4	-						-	-	-	-
21.5.2.2. IPv6	-						-	-	-	-
21.6. Internet Protocol Transition technology										
21.6.1. Dual stack	-						B	B	-	-
21.6.2. Tunneling	-						B	B	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
21.6.3. Translation	-						B	B	-	-
21.6.4. Addressing	-						A	B	-	-
21.6.5. Perform IPv4 / IPv6 translations.	-						-	-	-	-
21.7. Red-Black Concept	-						B	B	-	-
21.8. Signal Flow End to End Concept	-						-	B	-	-
21.9. Network Planning										
21.9.1. Subnet Planning	-						-	B	-	-
21.9.2. Variable length subnet masking	-						-	B	-	-
21.10. Network Hardware										
21.10.1. Data Terminal Equipment (DTE)	-						A	B	-	-
21.10.2. Data Communications Equipment (DCE) (e.g. modems, line drivers)	-						A	B	-	-
21.10.3. Converters/Transceiver (10 Base T to 10 Base FL, DB 25 to RJ45)	-						A	B	-	-
21.11. Switching Devices										
21.11.1. SONET	-						A	-	-	-
21.11.2. ATM	-						A	-	-	-
21.11.3. Ethernet e.g. 10\100\1000\10g	-						A	-	-	-
21.12. VPN Concentrators	-						A	B	-	-
21.13. Network Interface Card (NIC)	-						A	B	-	-
21.14. Switches	-						B	B	-	-
21.15. Repeaters	-						A	B	-	-
21.16. Routers	-						B	B	-	-
21.17. Gateway	-						A	B	-	-
21.18. Timing Devices (e.g. GPS, CDS-10/20, Rubidium, Cesium)	-						A	B	-	-
21.19. Modulation, Multiplexing and Signaling TR: DISAC 310-70-1; TOs 31-1-201 series, 31Z-10-20										
21.19.1. Modulation	-						-	A	-	-
21.19.2. Amplitude	-						-	A	-	-
21.19.3. Frequency	-						-	A	-	-
21.19.4. Phase	-						-	A	-	-
21.19.5. Bi-Phase Shift Keying (BPSK)	-						-	A	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
21.19.6. Quadrature-Phase Shift Keying (QPSK)	-						-	A	-	-
21.19.7. Conditioned Diphase Interface (CDI)	-						-	A	-	-
21.19.8. Pulse Code Modulation (PCM).	-						-	A	-	-
21.19.9. Bandwidth.	-						-	A	-	-
21.19.10. Multiplexing Principles	-						A	A	-	-
21.20. Lightwave Communications.	-						-	A	-	-
21.21. Signaling TR: MIL-STD 208-154; TOs 31-1-201-3										
21.21.1. Analog	-						A	B	-	-
21.21.2. Digital	-						A	B	-	-
21.21.3. Network Timing	-						A	B	-	-
21.21.4. Synchronization	-						-	A	-	-
21.22. Digital Communications										
21.22.1. Signal characteristics										
21.22.1.1. Synchronous	-						A	B	-	-
21.22.1.2. Isochronous	-						A	B	-	-
21.22.1.3. Asynchronous	-						A	B	-	-
21.22.2. Signal rate	-						A	B	-	-
21.22.3. Bit count integrity	-						-	-	-	-
21.22.4. Signal formats (e.g. NRZ, AMI, Bipolar)	-						A	B	-	-
21.22.5. Broadband technologies	-						A	B	-	-
21.22.6. Integrated Services Digital Network (ISDN) TR: Applicable commercial manuals										
21.22.6.1. Describe capabilities and limitations of ISDN.	-						A	B	-	-
21.22.6.2. Describe the following ISDN applications:										
21.22.6.2.1. Video Teleconferencing (VTC).	-						-	-	-	-
21.22.6.2.2. Secure Terminal Equipment (STE).	-						A	B	-	-
22. NETWORK MANAGEMENT TR: AFI 33-103; 33-115 (Vol 1); Applicable DISAC 300 and 310 series										
22.1. Configuration Management										

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
22.1.1. Contingency plans (e.g. backup, restoral, recovery)										
22.1.1.1. Develop	7						-	-	-	-
22.1.1.2. Implement	5						-	-	-	-
22.1.2. Addressing schema (e.g. MAC, Internet Protocol)										
22.1.2.1. Develop	-						2b	-	-	-
22.1.2.2. Implement	-						2b	-	-	-
22.1.3. Network management system (e.g. NMS, HP OpenView, Transmission Control (TRAMCON), Joint Defense Information Infrastructure Control System (JDIICS) SMARTS in charge)										
22.1.3.1. Implement Simple Network Management Protocol (SNMP)	-						2b	B	-	-
22.1.3.2. Set thresholds	-						2b	B	-	-
22.1.3.3. Implement Remote Monitor (RMON)	-						2b	B	-	-
22.1.3.4. Use Management Information Base (MIB)	-						-	B	-	-
22.2. Manage Scheduled Outages	7						-	-	-	-
22.3. Circuit Actions										
22.3.1. Correspondence TR: DISAC 310-70-1										
22.3.1.1. Telecommunications Request (TR)/ Telecommunications Service Order (TSO)	-						A	A	-	-
22.3.1.2. Priorities (TSP)	-						A	A	-	-
22.3.1.3. Command communications service designator and trunk identifiers	-						A	A	-	-
22.3.1.4. Status Acquisition Message (SAM)	-						A	A	-	-
22.3.1.5. Completion reports	-						A	A	-	-
22.3.1.6. Communication systems	-						-	-	-	-
22.3.1.7. Requirement documents	-						-	-	-	-
22.3.1.8. CSRD/PSA/SLA	-						-	-	-	-
22.3.1.9. Direct actions to support circuit requirements	-						-	-	-	-
22.3.1.10. Update circuit and system records	-						-	-	-	-
22.3.1.11. Facility and link data	-						-	-	-	-
22.3.1.12. Circuit history folders	-						-	-	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
22.3.1.13. Station reporting guides	-						-	-	-	-
22.3.1.14. Document circuit test results	-						-	-	-	-
23. TELECOMMUNICATION SYSTEMS RECORDS. TR: AFI 33-111; TO 00-20-1-WA-1 and Commercial Manuals.										
23.1. Capabilities and Limitations of Automated Telecommunications Management Systems.	-						A	-	-	-
23.2. Interpret Base Cable Plant Configuration.	-						-	-	-	-
23.3. Telephone and Wire Communications Records.										
23.3.1. Maintain records.	-						-	-	-	-
23.3.2. Maintain circuit layout record/trouble reports.	-						-	-	-	-
23.3.3. Process work order requests.	-						-	-	-	-
23.3.4. Maintain storage battery records.	-						-	-	-	-
23.4. Fault Management										
23.4.1. LAN Fault Isolation	-						2b	-	-	-
23.4.2. WAN Fault Isolation	-						-	-	-	-
23.5. Performance Management										
23.5.1. Evaluate Network Performance										
23.5.1.1. Gather data	-						-	-	-	-
23.5.1.2. Analyze data	-						-	-	-	-
23.5.1.3. Generate reports	-						-	-	-	-
23.5.2. Evaluate component performance										
23.5.2.1. Gather data	-						-	-	-	-
23.5.2.2. Analyze data	-						-	-	-	-
23.5.2.3. Generate reports	-						-	-	-	-
23.5.3. Trend analysis										
23.5.3.1. Identify	-						-	B	-	-
23.5.3.2. Analyze	-						-	B	-	-
23.5.3.3. Recommend solutions	-						-	-	-	-
23.5.4. Establish quality control test schedules	-						-	-	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
24. HARDWARE AND SOFTWARE TR: AFIs 33-112, 33-113, 33-114, 33-202; IEEE/EIAs 12207, 12207.0, 12207.1; MIL STD 188-154A ; applicable KAMs, LMMs for Encryption devices										
24.1. Install Hardware										
24.1.1. Peripheral/ component cards (e.g. Promina)	5						-	-	-	-
24.1.2. Line drivers	-						-	-	-	-
24.1.3. Interface converters	-						-	-	-	-
24.1.4. Switching devices	5						-	-	-	-
24.1.5. Encryption devices										
24.1.5.1. Type 1 cryptographic equipment	-						-	-	-	-
24.1.5.2. VPN Concentrators	-						-	-	-	-
24.1.6. Multiplexers	-						-	-	-	-
24.1.7. Network transceivers	-						-	-	-	-
24.1.8. Repeaters	-						-	-	-	-
24.1.9. Routers	-						-	-	-	-
24.1.10. Power supply	-						-	-	-	-
24.2. Make Connections TR: TO 00-25-234, 31-1-141-15										
24.2.1. Frame										
24.2.1.1. Wire wrap	5						2b	-	-	-
24.2.1.2. Punch down	5						2b	-	-	-
24.2.2. Cable fabrication										
24.2.2.1. Multipin	5						2b	-	-	-
24.2.2.2. Modular	5						2b	-	-	-
24.2.2.3. Coaxial	-						-	-	-	-
24.3. Configure Devices										
24.3.1. Modem CSU/DSU	-						-	-	-	-
24.3.2. Converter	-						-	-	-	-
24.3.3. Switches	5						2b	-	-	-
24.3.4. Encryption devices										
24.3.4.1. Type 1 cryptographic equipment	-						-	-	-	-
24.3.4.2. VPN concentrators	-						2b	-	-	-
24.3.5. Asynchronous Transfer Mode (ATM)	-						-	-	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
24.3.6. Routers	-						2b	-	-	-
24.3.7. Wireless Access Points	-						2b	-	-	-
24.3.8. Multiplexors	-						2b	-	-	-
24.4. TDC P-Mux Module TR: P-Mux Operations and Maintenance Manuals										
24.4.1. Functions	-						A	B	-	-
24.4.2. Hardware	-						A	B	-	-
24.4.3. Configure	-						2b	-	-	-
24.4.4. Operate	-						2b	-	-	-
24.5 TDC BAM										
24.5.1. Functions	-						A	B	-	-
24.5.2. Hardware	-						A	B	-	-
24.5.3. Configure	-						2b	-	-	-
24.5.4. Operate	-						2b	-	-	-
24.6. TDC Crypto Module										
24.6.1. Functions	-						A	B	-	-
24.6.2. Hardware	-						A	B	-	-
24.6.3. Configure	-						2b	-	-	-
24.6.4. Operate	-						2b	-	-	-
24.7. TDC Crypto Interface Module										
24.7.1. Functions	-						A	B	-	-
24.7.2. Hardware	-						A	B	-	-
24.7.3. Configure	-						2b	-	-	-
24.7.4. Operate	-						2b	-	-	-
24.8. TDC Red Data Module										
24.8.1. Functions	-						A	B	-	-
24.8.2. Hardware	-						A	B	-	-
24.8.3. Configure	-						2b	-	-	-
24.8.4. Operate	-						2b	-	-	-
24.9. FCC-100 Tactical Module										
24.9.1. Functions	-						A	B	-	-
24.9.2. Hardware	-						A	B	-	-
24.9.3. Configure	-						-	-	-	-
24.9.4. Operate	-						-	-	-	-
24.10. Global Broadcast Service (GBS)										
24.10.1. Functions	-						A	B	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
24.10.2. Hardware	-						A	B	-	-
24.10.3. Configure	-						2b	-	-	-
24.10.4. Operate	-						2b	-	-	-
25. KEYBOARD PROGRAMMABLE PBX. TR: Applicable commercial manuals										
25.1. Principles of System Operation.	-						-	-	-	-
25.2. System Capabilities.	-						-	A	-	-
25.3. Program a System.	-						-	-	-	-
25.4. Perform System Corrective Maintenance.	-						-	-	-	-
26. TROUBLESHOOT AND CORRECT DIGITAL VOICE SWITCHING SYSTEM FAULTS. TR: Applicable commercial manuals; System Utility Logs.										
26.1. Peripheral Module Faults.	-						-	-	-	-
26.2. Line Faults.	-						-	-	-	-
26.3. Mass Storage Device Faults.	-						-	-	-	-
27. EXPEDITIONARY COMMUNICATIONS CONCEPTS. TR: Applicable Equipment Manuals										
27.1. Perform the Following Functions to Establish Deployed Communication Services:										
27.1.1. Set-up network equipment in support of expeditionary operations	-						2b	-	-	-
27.1.2. Configure non-secure voice network	-						2b	-	-	-
27.1.3. Configure non-secure data network	-						2b	-	-	-
27.1.4. Configure secure voice network	-						2b	-	-	-
27.1.5. Configure secure data network	-						2b	-	-	-
27.1.6. Configure GBS for operations	-						2b	-	-	-
27.1.7. Sustain network equipment for expeditionary operations	-						2b	-	-	-
27.1.8. Tear-down equipment for re-deployment	-						2b	-	-	-
28. ELECTRONIC COMBAT. TR: AFI 10-706 and AFT 51-45										
28.1. Electronic Combat Phenomenon as it Applies to/Impacts Radar Systems.	-						-	A	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
28.2. Concepts of Electronic Attack (EA).	-						-	A	-	-
28.3. Concepts of Electronic Warfare Support (ES).	-						-	A	-	-
28.4. Concepts of Electronic Protection (EP).	-						-	A	-	-
29. CRITICAL COMMUNICATIONS FACILITIES POWER SYSTEMS TR: Commercial Manuals										
29.1. Switched Electrical Power Systems.	-						A	A	-	-
29.2. UPS.	-						A	A	-	-
29.3. Batteries.	-						-	A	-	-
29.4. Rectifiers	-						-	-	-	-
29.5. Inverters	-						-	-	-	-
29.6. Generators	-						-	A	-	-
29.7. Perform Preventative Maintenance Inspections	-						-	-	-	-
30. TRANSMISSION MEDIA CONCEPTS. TR: TO 31-1-141 Series										
30.1. Explain Wireless Concepts.										
30.1.1. Microwave.	-						-	A	-	-
30.1.2. Satellite.	-						-	A	-	-
30.1.3. Radio.	-						-	A	-	-
30.1.4. Laser.	-						-	A	-	-
30.2. Transmission Technologies (ISDN, SONET/SDH, DSL and SS7)										
30.2.1. Introduction to ISDN.	-						-	-	-	-
30.2.2. ISDN Protocols.	-						-	-	-	-
30.2.3. ISDN, X.29 and ATM.	-						-	-	-	-
30.2.4. Overview of SONET and SDH.	-						-	-	-	-
30.2.5. Systems and Signals.	-						-	-	-	-
30.3. Introduction to MultiProtocol Label Switching.	-						-	-	-	-
30.4. Secure Login. (VPS)										
30.4.1. Secure Login 1 - Basics of Enterprise Telephony Management.	-						-	-	-	-
30.4.2. Secure Login 2 – TeleAudit.	-						-	-	-	-
30.4.3. Secure Login 3 - Telewall Security.	-						-	-	-	-
30.5. Voice Network Switching Systems (MSL-100, M1, AVAYA, and VoIP).										

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
30.5.1. Multi-function (MSL-100, VoIP)										
30.5.1.1. Capabilities and functions	-						-	A	-	-
30.5.1.2. Voice mail	-						-	A	-	-
30.5.1.3. Meridian SL-100 Advanced Translations Applications.	-						-	-	-	-
30.5.2. End office (M1, AVAYA, VoIP)										
30.5.2.1. Capabilities and functions	-						-	A	-	-
30.5.2.2. Voice mail	-						-	A	-	-
30.5.3. Capabilities and functions of PBX (Siemens, VoIP)	-						-	A	-	-
31. NETWORK OPERATING PRINCIPLES. TR: AF IT E-Learning, My Assignment, IT Professional Curricula, Internet and Network Technologies Solution Area										
31.1. Data Representation	-						-	B	-	-
31.2. Standards	-						-	A	-	-
31.3. OSI Reference Model	-						-	B	-	-
31.4. Theory and Operation of Common Network Topologies	-						-	B	-	-
31.5. Protocols	-						-	B	-	-
31.6. Function and Characteristics of Server Computer. Note: Check Hardware/Peripheral Devices: CPU, Memory, Motherboard, Power Supply, Data Storage, Input/Output Devices.	-						-	B	-	-
32. SOFTWARE PRINCIPLES/OPERATING SYSTEMS. TR: Computer, Network and Cryptographic Systems Technician; CBT Volume--Internet and Intranet Infrastructure: Unix: Overview, Essentials of Windows; CBT Volume--Microsoft										
32.1. Software Principles.	-						-	-	-	-
32.2. Identify Differences Between Hardware and Software Faults.	-						A	A	-	-
32.3. Identify the Basic Architecture of the Operating System.	-						-	A	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
32.4. Describe Relationship Between Operating Systems and Application Software.	-						-	A	-	-
32.5. Server Configuration.										
32.5.1. Configure DHCP.	-						2b	-	-	-
32.5.2. Configure DNS.	-						2b	-	-	-
32.5.3. Configure Active Directory.	-						-	-	-	-
33. ENCRYPTION DEVICES. TR: AFSSI 3017 (KG-84, KIV-7), AFSSI 3013 (KG-81, KG-94, KG-95, KG-194), AFSSI 3035 (TACLANE), STE User's Manual 2.6 Rev A Jan. 2008										
33.1. Introduction to Crypto Devices/ COMSEC.	-						B	-	-	-
33.2. TSEC/KG-84A Limited Maintenance.										
33.2.1. Perform limited maintenance on the TSEC/KG-84A.	-						2b	-	-	-
33.2.2. Perform Manual Rekey (OTAR).	-						2b	-	-	-
33.2.3. Perform Manual Cooperative Key Transfer (MK/RV).	-						2b	-	-	-
33.2.4. Identify facts concerning authorized equipment modifications.	-						A	-	-	-
33.2.5. Inspect equipment for authorized modifications.	-						2b	-	-	-
33.2.6. Perform Automatic Rekey (AK/Net OTAR).	-						2b	-	-	-
33.3. Perform Limited Maintenance on the KG-194A.	-						2b	-	-	-
34. OPERATE COMMON FILL DEVICES. TR: TM 11-5810-292-13&P (KOI-18, KYK-13, KYX-15), AFSSI 3021 (DTD), AFSSI 3041 (SKL), AFLMM-10A (SKL)										
34.1. Perform a Key Transfer Operation from Common Fill Devices	-						2b	-	-	-
34.2. Configure Bulk Encryption Devices for Operations.	-						2b	-	-	-
34.3. Configure I.P. Encryption Devices for Operations.	-						2b	-	-	-
34.4. Perform a KOI-18 Transfer.	-						-	-	-	-
34.5. Perform a KYK-13 Transfer.	-						-	-	-	-

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		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
34.6. Perform a KYX-15 Transfer.	-						-	-	-	-
34.7. Perform a CYZ-10/A Transfer.	-						-	-	-	-
34.8. Perform a Simple Key Loader (SKL) Transfer.	-						-	-	-	-
34.9. Perform a DTD Transfer	-						-	-	-	-
35. FIBER OPTICS. TR: TO 31-10-34 and applicable technical publications. Supplemental Course: J8AZR2E652 0F5A, Fiber Optic Cable Installation, Splicing and Maintenance.										
35.1. Describe the Principles of Light Wave Communications	-						A	-	-	-
35.2. Describe the Principles of Fiber Optic Modem Operation.	-						A	-	-	-
35.3. Describe the Principles of Fiber Optic Multiplexer Operation.	-						A	-	-	-
35.4. Describe the Types and Applications of Fiber Optic Connectors.	-						A	-	-	-
35.5. Describe the Principles of Single Mode Fiber Optic Cable.	-						A	-	-	-
35.6. Describe the Principles of Multimode Fiber Optic Cable.	-						A	-	-	-
35.7. Test Fiber Optic Cable Using Fiber Optic Power Meters/Light Sources.	-						-	-	-	-
35.8. Troubleshoot Fiber Optic Modems.	-						-	-	-	-
35.9. Troubleshoot Fiber Optic Multiplexers.	-						-	-	-	-
35.10. Splice Fiber Optic Cable.	-						-	-	-	-
35.11. Fabricate Connectors.	-						-	-	-	-
36. DIGITAL SWITCHING FUNDAMENTALS. TR: Helmsman Commercial Manual										
36.1. Principles of Telephony and Distribution Systems	5						A	B	-	-
36.2. Switch Security	5						-	A	-	-
36.3. Use Helmsman Commercial Manuals To Locate Information on Major Components of Digital Voice Switching Systems										
36.3.1. Core (CPU/Message Switch)	-						1a	-	-	-
36.3.2. System Load Module	-						1a	-	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
36.3.3. The E-Net	-						1a	-	-	-
36.3.4. Trunk Module	-						1a	-	-	-
36.3.5. Line Module	-						1a	-	-	-
36.3.6. IO Devices										
36.3.6.1. Disk Drive Unit	-						1a	-	-	-
36.3.6.2. DAT Tape Drive	-						1a	-	-	-
36.3.6.3. Maintenance and Administration Position (MAP)	-						1a	-	-	-
36.3.7. Power Distribution System										
36.3.7.1. Batteries	-						1a	-	-	-
36.3.7.2. Rectifiers	-						1a	-	-	-
36.3.7.3. Inverters	-						1a	-	-	-
36.3.8.. Office alarm unit (OAU).	-						1a	-	-	-
36.4. Describe the Major Components of Digital Voice Switching Systems										
36.4.1. Core (CPU/Message Switch)	-						A	A	-	-
36.4.2. System Load Module	-						A	A	-	-
36.4.3. The E-Net	-						A	A	-	-
36.4.4. Trunk Module	-						A	A	-	-
36.4.5. Line Module	-						A	A	-	-
36.4.6. IO Devices										
36.4.6.1. Disk Drive Unit	-						A	A	-	-
36.4.6.2. DAT Tape Drive	-						A	A	-	-
36.4.6.3. Maintenance and Administration Position (MAP)	-						A	A	-	-
36.4.7. State the capabilities and limitations of the Power Distribution System										
36.4.7.1. Batteries	-						A	-	-	-
36.4.7.2. Rectifiers	-						A	-	-	-
36.4.7.3. Inverters	-						A	-	-	-
36.4.8. Office alarm unit (OAU).	-						A	A	-	-
36.5. Describe the Relationship of Peripheral Module Interconnectivity	-						A	A	-	-
36.6. Switch Security and Access Control TR: AFI 33-111	-						-	A	-	-
36.7. Describe Database Table Structure	-						A	A	-	-
36.8. Describe Purpose and Functions of Main Distribution Frame (MDF)	-						B	A	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
36.9. Perform Preventative Maintenance Inspections										
36.9.1. Backup Procedures	-						-	-	-	-
36.9.2. Cooling Unit	-						-	-	-	-
36.9.3. Dead System Alarm	-						-	-	-	-
36.9.4. Batteries	-						-	-	-	-
36.9.5. MDF	-						-	-	-	-
36.10. Troubleshoot Line Faults	-						-	-	-	-
36.11. Perform Patching on Digital Signal Cross Connect (DSX) Patch Panel TR: Applicable DSX patch panel manual or local procedures	-						-	-	-	-
37. NETWORK SUSTAINMENT. TR: AF IT E-Learning, My Assignment, IT Professional Curricula, Internet and Network Technologies Solution Area, Network Support										
37.1. Perform Network Operational Check.	-						2b	-	-	-
37.2. Perform a Change Key Operation on a Network.	-						2b	-	-	-
37.3. Configure Network Timing (Sync, Async, Etc…)	-						2b	-	-	-
37.4. Configure Circuits Using Patch Panel.	-						2b	-	-	-
37.5. Perform the Following Patch Panel Applications:										
37.5.1. Trace network signals.										
37.5.1.1. Data.	-						2b	-	-	-
37.5.1.2. Timing.	-						2b	-	-	-
37.5.1.3. Control.	-						2b	-	-	-
37.5.2. Perform system loopbacks.	5						2b	-	-	-
37.5.3. One test set/single system with local loopback.	5						-	-	-	-
37.5.4. Two test sets/point-to-point.	5						2b	-	-	-
37.6. Identify Common Causes of Transmission Impairment in Analog and Digital Circuits.										
37.6.1. Noise.	-						-	B	-	-
37.6.2. Timing.	-						-	B	-	-
37.6.3. Line loss.	-						-	B	-	-
37.6.4. Latency	-						-	B	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
37.7. Virtual Private Networks										
37.7.1. Configure for operation.	-						2b	-	-	-
37.7.2. Perform operational check.	-						2b	-	-	-
37.7.3. Isolate and repair malfunctions.	-						2b	-	-	-
37.8. Perform system backup/restoral.	-						-	-	-	-
38. FUNDAMENTALS OF VIDEO SYSTEMS. TR: Commercial Sources (see Books 24x7 "digital video systems")										
38.1. Analog Video.	-						-	A	-	-
38.2. Digital Video.	-						-	A	-	-
38.3. Analog Audio.	-						-	-	-	-
38.4. Digital Audio.	-						-	A	-	-
38.5. Media Formats.	-						-	A	-	-
39. VIDEO CAMERAS. TR: Applicable Equipment TOs and Commercial Manuals										
39.1. Camera Types.	-						-	-	-	-
39.2. Camera Functions.										
39.2.1. Optical systems (enabling) with charged coupled devices (CCD).	-						-	-	-	-
39.3. Perform Operational Check.	-						-	-	-	-
39.4. Remove and Replace the Following Camera Components:										
39.4.1. Subassemblies.	-						-	-	-	-
40. Video Distribution and Display Systems. TR: Applicable Equipment TOs and Commercial Manuals										
40.1. Identify Principles of Operation.										
40.1.1. Video Switcher Devices	-						-	A	-	-
40.1.2. Video Routing Devices	-						-	A	-	-
40.1.3. Video Distribution Amplifiers	-						-	A	-	-
40.1.4. Video Display Units	-						-	A	-	-
40.2. Perform Operational Checks on:										
40.2.1. Video Switcher Devices	-						-	-	-	-
40.2.2. Video Routing Devices	-						-	-	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
40.2.3. Video Distribution Amplifiers	-						-	-	-	-
40.2.4. Video Display Units	-						-	-	-	-
41. DIGITAL VIDEO STORAGE SYSTEM. TR: Applicable Equipment TOs and Commercial Manuals										
41.1. Capabilities and Limitations of a Digital Video Storage System.	-						-	-	-	-
42. DSS-1 RED SWITCH TR: DISAC 310-70-84; LWC 3CS-X-001; TM 92-006-UG; TM 97-008-OM										
42.1. Identify Assemblies	-						-	-	-	-
42.2. Isolate Malfunctioning Assemblies	-						-	-	-	-
42.3. Remove and Replace Assemblies	-						-	-	-	-
42.4. Perform Operator Maintenance	-						-	-	-	-
42.5. Perform Preventative Maintenance Inspections	-						-	-	-	-
42.6. Perform Database Maintenance	-						-	-	-	-
42.7. Enable/Disable Station	-						-	-	-	-
42.8. Reset Station Cipher Code	-						-	-	-	-
42.9. Check Status of Interfaces	-						-	-	-	-
42.10. Check Status of Trunks	-						-	-	-	-
42.11. Print Incoming Messages	-						-	-	-	-
42.12. Perform System Restoration Procedures	-						-	-	-	-
42.13. Pairgain										
42.13.1. Overview	-						-	-	-	-
42.13.2. Installation	-						-	-	-	-
42.13.3. Connecting Power	-						-	-	-	-
42.13.4. Configuration	-						-	-	-	-
42.13.5. Troubleshooting	-						-	-	-	-
42.14. Codex 3500										
42.14.1. Overview	-						-	-	-	-
42.14.2. Installation	-						-	-	-	-
42.14.3. Connecting Power	-						-	-	-	-
42.14.4. Configuration	-						-	-	-	-
42.14.5. Troubleshooting	-						-	-	-	-
42.15. KIV-7										

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
42.15.1. Overview	-						-	-	-	-
42.15.2. Installation	-						-	-	-	-
42.15.3. Connecting Power	-						-	-	-	-
42.15.4. Configuration	-						-	-	-	-
42.15.5. Troubleshooting	-						-	-	-	-
43. INTRUSION DETECTION SYSTEMS. TR: AFQTP 3D1XX-204DF										
43.1. Installation Security Systems	-						-	A	-	-
43.2. Exterior Sensors	-						-	A	-	-
43.3. Interior Sensors	-						-	A	-	-
43.4. Annunciators, Surveillance and Communications Systems	-						-	A	-	-
43.5. AN/GXS-2(V) and -3(V) Perimeter Surveillance Systems, CCTV.										
43.5.1. Identify functional description.	-						-	-	-	-
43.5.2. Identify technical characteristics.	-						-	-	-	-
43.5.3. Thermal Imaging.	-						-	-	-	-
43.6. AN/GSS-41(V) Restricted Area Anti-Intrusion Alarm Set. TR: AFJQS 3D1X3-204DG, AN/GSS-37(V) Restricted Area Anti-Intrusion Alarm Set.										
43.6.1. Identify functional description.	-						-	-	-	-
43.6.2. Identify technical characteristics.	-						-	-	-	-
43.7. AN/GSS-34(V) Ported Coaxial Cable Sensor (PCCS) Maintenance.										
43.7.1. Identify functional description.	-						-	-	-	-
43.7.2. Identify technical characteristics.	-						-	-	-	-
43.8. AN/GSS-43(V) Exterior Intrusion Detection System (EIDS).										
43.8.1. Identify functional description.	-						-	-	-	-
43.8.2. Identify technical characteristics.	-						-	-	-	-
43.9. AN/GSS-39(V) Interior Intrusion Detection System (IIDS).										
43.9.1. Identify functional description.	-						-	-	-	-
43.9.2. Identify technical characteristics.	-						-	-	-	-

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		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
43.10. Identify Principles of Operation of a Fiber Optic Intrusion Detection System. TR: Applicable technical manuals	-						-	-	-	-
44. INTRUSION DETECTION SYSTEMS SENSOR EQUIPMENT TR: Commercial Manuals										
44.1. Interior Intrusion Detection Systems Sensor Equipment.	-						-	-	-	-
44.2. Perform Operational Checks on:										
44.2.1. Magnetic switch sensor.	-						-	-	-	-
44.2.2. Interior microwave sensor.	-						-	-	-	-
44.2.3. Interior infrared sensor.	-						-	-	-	-
44.2.4. Dual-phenomenology sensor.	-						-	-	-	-
44.3. Adjust a Magnetic Switch Sensor.	-						-	-	-	-
44.4. Troubleshoot:										
44.4.1. Magnetic switch sensor.	-						-	-	-	-
44.4.2. Interior microwave sensor.	-						-	-	-	-
44.4.3. Interior infrared sensor.	-						-	-	-	-
44.4.4. Interior dual-phenomenology sensor.	-						-	-	-	-
44.5. Exterior Intrusion Detection Systems Sensor Equipment.	-						-	-	-	-
44.6. Buried Line Sensor.	-						-	-	-	-
44.7. Fiber Optic Systems.	-						-	-	-	-
44.8. Perform Operational Checks on:										
44.8.1. Fence protection system.	-						-	-	-	-
44.8.2. Infrared perimeter detection system.	-						-	-	-	-
44.8.3. Microwave fence sensor.	-						-	-	-	-
44.8.4. Buried line sensor.	-						-	-	-	-
44.8.5. Fiber Optic System.	-						-	-	-	-
44.8.6. Taut Wire System.	-						-	-	-	-
44.9. Troubleshoot:										
44.9.1. Fence protection system to the faulty LRU.	-						-	-	-	-
44.9.2. Infrared perimeter detection system to the faulty LRU.	-						-	-	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
44.9.3. Microwave fence sensor to the faulty LRU.	-						-	-	-	-
44.9.4. Buried line sensor to the faulty LRU.	-						-	-	-	-
44.9.5. Fiber Optic System.	-						-	-	-	-
44.9.6. Taut Wire System.	-						-	-	-	-
44.10. Align:										
44.10.1. Microwave fence sensor.	-						-	-	-	-
44.10.2. Infrared perimeter detection system.	-						-	-	-	-
44.10.3. Buried line sensor.	-						-	-	-	-
45. INTRUSION DETECTION SYSTEMS COMMAND AND CONTROL EQUIPMENT TR: Commercial Manual										
45.1. Access Control Devices.	-						-	-	-	-
45.2. Build a Site Configuration for a Computer-Based Annuciator.	-						-	-	-	-
45.3. Modify a Site Configuration for a Computer-Based Annunciator.	-						-	-	-	-
45.4. Identify the Principles of Operation of a Computer-Based Annunciator. TR: Applicable technical manuals	-						-	-	-	-
46. AIR FORCE JOB QUALIFICATION STANDARDS APPLICABLE TO AFSC 3D1X2. TR: AFI 33-150; AFI 36-2233, MPTO 00-33A-1001, CFETP 3D1X2										
46.1. AFJQS3D1X1-206R Scope Command HF Radio Station	-						-	-	-	-
46.2. AFJQS3D1X2-200CH Infrastructure Technician	-						-	-	-	-
46.3. AFJQS3D1X2-200CJ Configuration Management Technician	-						-	-	-	-
46.4. AFJQS3D1X2-200H Theater Deployable Communications (TDC) Infrastructure	-						-	-	-	-
46.5. AFJQS3D1X2-201B Promina 800, 400 and 200 Multiservice Access Platform	-						-	-	-	-
46.6. AFJQS3D1X2-201TB Modular Control Equipment	-						-	-	-	-
46.7. AFQTP3D1X2-204DF BISS Familiarization	-						-	-	-	-
46.8. AFJQS3D1X2-204DG AN/GSS-37(V) Restricted Area Anti-Intrusion Alarm Set	-						-	-	-	-

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		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
46.9. AFJQS3D1X2-204DJ AN/GSS-34(V) Ported Coaxial Cable Sensor (PCCS) AN/GSS-40 Short Ported Coaxial Sensor (SPCS) Maint.	-						-	-	-	-
46.10. AFJQS3D1X2-204DK AN/GGS-42 Exterior Intrusion Detection System	-						-	-	-	-
46.11. AFJQS3D1X2-204DL AN/GSS-39(V) Interior Intrusion Detection Systems (IIDS)	-						-	-	-	-
46.12. AFJQS3D1X2-204DM Weapons Storage Area Switch	-						-	-	-	-
46.13. AFJQS3D1X2-204Q SFC-26 Satellite Receive/Signal Distribution System	-						-	-	-	-
46.14. AFJQS3D1X2-204Z SFC-36 TV Production System	-						-	-	-	-
46.15. AFJQS3D1X2-207RA DMS 100/200 Digital Switch Translations	-						-	-	-	-
46.16. AFJQS3D1X2-207RC DMS/MSL 100/200 Traffic Analysis	-						-	-	-	-
46.17. AFJQS3D1X2-208R DMS/MSL Digital Telephone Switching Systems	-						-	-	-	-
46.18. AFJQS3D1X2-208ZA Strategic Automated Command and Control System (SACCS)	-						-	-	-	-
46.19. AFJQS3D1X2-209IA XFFG8 C-E American Forces Radio and Television Service Broadcast Systems Support and Augmentation	-						-	-	-	-
46.20. AFJQS3D1X2-210K 6KNZC: C-E Crypto/Computer Systems Support	-						-	-	-	-
46.21. AFJQS3D1X2-210X DE-3/DE-4 Channel Bank Maintenance	-						-	-	-	-
46.22. AFJQS3D1X2-211K Avaya Definity G3 (Multi-Vantage)	-						-	-	-	-
46.23. AFJQS3D1X2-212Z Global Broadcast Service Ground Receive Suite	-						-	-	-	-
46.24. AFJQS3D1X3-200K TDC Transmission	-						-	-	-	-
46.25. AFJQS3D1X3-204C AN/FSQ-143(V) Weapons Storage and Security System	-						-	-	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
46.26. AFQTP3D1X3-207SA Digital Communications Subsystem	-						-	-	-	-
47. AIR FORCE JOB QUALIFICATION STANDARDS APPLICABLE TO AFSC 3D1XX. TR: AFI 33-150; AFI 36-2233, MPTO 00-33A-1001, CFETP 3D1X2										
47.1. AFJQS3D1XX-200F Engineering Installation (EI) Team Chief	-						-	-	-	-
47.2. AFJQS3D1XX-200S Basic Soldiering	-						-	-	-	-
47.3. AFJQS3D1XX-201C Corrosion Prevention and Control	-						-	-	-	-
47.4. AFJQS3D1XX-201X Engineering Installation (EI) Quality Assurance	-						-	-	-	-
47.5. AFQTP3DXXX-202A Electrostatic Discharge Handbook	-						-	-	-	-
47.6. AFJQS3D1XX-204V AN/FCC-100(V)7 & 9 Multiplexer Set	-						-	-	-	-
47.7. AFJQS3D1XX-218A Predator	-						-	-	-	-
47.8. AFJQS3D1XX-230U Network Protocol Analyzer	-						-	-	-	-
48. AIR FORCE JOB QUALIFICATION STANDARDS APPLICABLE TO AFSC 3DXXX. TR: AFI 33-150; AFI 36-2233, MPTO 00-33A-1001, CFETP 3D1X2										
48.1. AFQTP3DXXX-200D Integrated Maintenance Data System Handbook	-						-	-	-	-
48.2. AFJQS3DXXX-200EC AN/GSQ-272 Distributed Common Ground Systems Data Links	-						-	-	-	-
48.3. AFJQS3DXXX-200I Cyber Unit Deployment Manager	-						-	-	-	-
48.4. AFJQS3DXXX-200N DoD 8570 IA Workforce Improvement Program	-						-	-	-	-
48.5. AFJQS3DXXX-200TBA Training Business Area (TBA) Handbook	5						-	-	-	-
48.6. AFJQS3DXXX-200TBB Training Business Area (TBA) Power Users	-						-	-	-	-
48.7. AFJQS3DXXX-200W, Cyberspace Support Workforce Transformation	-						-	-	-	-

1. TASKS, KNOWLEDGE AND TECHNICAL REFERENCES	2. CORE & WARTIME TASKS	3. CERTIFICATION FOR OJT					4. PROFICIENCY CODES USED TO INDICATE TRAINING/INFORMATION PROVIDED			
		A	B	C	D	E	3 SKILL LEVEL	5 SKILL LEVEL	7 SKILL LEVEL	9 SKILL LEVEL
		START DATE	STOP DATE	TRAINEE INITIALS	TRAINER INITIALS	CERTIFIER INITIALS	Course	CDC	OJT	OJT
48.8. AFJQS3DXXX-201G Quality Assurance	-						-	-	-	-
48.9. AFJQS3DXXX-201TC JTIDS Module	-						-	-	-	-
48.10. AFJQS3DXXX-204EA Combat Information Transport System (CITS) Block 35 CITS Virtual Infrastructure (CVI)	-						-	-	-	-
48.11. AFJQS3DXXX-208K Core Computer Version 2 Enhanced (CC2E) Maintenance	-						-	-	-	-
48.12. AFJQS3DXXX-208N Battle Control System-Fixed (BCS-F)	-						-	-	-	-
48.13. AFQTP3DXXX-212C Command, Control, Communications and Computer (C4) Information Systems Familiarization Handbook	-						-	-	-	-
48.14. AFJQS3DXXX-212E Combined AN/PYQ-10 (C) Simple Key Loader and AN/CYZ-10/10A (V3) Data Transfer Device	-						-	-	-	-
48.15. AFJQS3DXXX-212U Unified Command Suite	-						-	-	-	-
48.16. AFJQS3DXXX-213I Military Construction Program	-						-	-	-	-
48.17. AFJQS3DXXX-213J Second Generation Wireless Local Area Network	-						-	-	-	-
48.18. AFJQS3DXXX-213Q Automated Health And Morale System (AHAMS)	-						-	-	-	-
48.19. AFQTP3DXXX-213R Support Agreements and Administrative Contract Management	-						-	-	-	-
48.20. AFJQS3DXXX-230T Remedy	-						-	-	-	-
48.21. AFQTP3DXXX-232A Communications and Information Work Center Supervisor's Handbook AFQTPXXXXX-212C, Command, Control, Communications, and Computer (C4) Information Systems Familiarization Handbook	7						-	-	-	-

Section B - Course Objective List

4. Measurement. Each objective is indicated as follows: W indicates task or subject knowledge which is measured using a written test, PC indicates required task performance which is measured with a performance progress check and PC/W indicates separate measurement of both knowledge and performance elements using a written test and a progress check.

5. Standard. The standard is 70% on written examinations. Standards for performance measurement are indicated in the objective and delineated on the individual progress checklist. Instructor assistance is provided as needed during the progress check and students may be required to repeat all or part of the behavior until satisfactory performance is attained.

6. Proficiency Level. Most task performance is taught to the "2b" proficiency level which means the student can do most parts of the task, but does need assistance on the hardest parts of the task (partially proficient). The student can also determine step by step procedures for doing the task.

7. Course Objectives. These objectives are listed in the sequence taught by Block of Instruction. Because the communications career field is ever changing, we are providing a website with a "living" course objective list (COL). As changes are made to the courses they will also be made to the website. Use the following link to get started and then navigate to the COL by selecting the 81st TRW, 81st TRG and finally the 338th TRS to locate the COL.
https://afkm.wpafb.af.mil/community/views/home.aspx?Filter=20946

Section C - Support Materials

8. The following list of support materials is not all-inclusive; however, it covers the most frequently referenced areas. The most current products can be found at the 81st TRSS/TSQ web page and are available for download from the web site at https://afkm.wpafb.af.mil/community/views/home.aspx?Filter=20946 Procedures for requesting product development are found in AFI 36-2233.

Section D - Training Course Index

9. Purpose. This section of the CFETP identifies training courses available for continuation/ supplemental training. For information on all formal courses, refer to the Air Force Education and Training Course Announcements (ETCA) database, formerly AFCAT 36-2223, *USAF Formal Schools Catalog* at https://etca.randolph.af.mil/

10. Air Force In-Residence Courses.

Course Number	Course Title	Location
AIA2E2X1 001	Communications Segment Maintenance	Goodfellow
AIA2E2X1 002	Ground Data Processing System Maintenance Course	Goodfellow
AIA2E2X1-011	Deployable Ground Intercept Facility/Ground Control Processor Maint.	Langley
AIA2E2X1-012	Mission Intelligence Segment Maint	Langley
J3AZR3D152 0E5A	Avaya Voice Network Switching	Sheppard
J3AZR3D152 0S5A	Digital Voice Switching	Sheppard
J3AZR3D152 0Z5A	Voice Translations	Sheppard
E6AZW3D152 01UA	Broadcast Television Sys Maintenance (DINFOS-AFRTS-BRTSM)	Ft Meade
J3AZR3D152 0V5A	Voice Protection System	Sheppard
J3AZR3D152 0C5A	Cisco Call Manager Voice Over Internet Protocol (VOIP)	Sheppard

J3AZR3D152 0T5A	Telecommunications Management Systems (TMS)	Sheppard
J3AZR3D152 0M5A	Meridian 1 Option 61c	Sheppard
J3AZR3D152 0N5A	Telephone Installation and Maintenance Techniques	Sheppard
E3AZR3D152 02AA	Modular Control Equipment (MCE) Organizational Maint	Keesler
E3AZR3D152 02DA	Air Force Mission Support Systems (AFMSS) Organizational Maintenance	Keesler
E7AST3D152 02EB	Global Broadcast Service Systems	Keesler
E3ASP3D152 02CA	TSEC/KG-47/47A/77 Depot Maintenance	Keesler
E3ASP3D152 03AA	KG-96/KGR-96 Depot Maintenance	Keesler
E3ASP3D152 03GA	MYK-16 Depot Maintenance	Keesler
E3ASP3D152 03MA	CI-13 Depot Maintenance	Keesler
E3ASP3D152 03OA	KOK-22/KOK-22A Depot Maintenance	Keesler
E3ASP3D152 03QA	TSEC/MYK 17 Depot Maintenance	Keesler
E3ASP3D152 03YA	TSEC/CI-10/ST-60 Depot Maintenance	Keesler
E6AZS3D152 01MA	STP COMSEC Awareness Training	Keesler
E6AZS3D152 01RA	TRI-TAC COMSEC Equipment, Limited Maintenance (STP)	Keesler
E6AZS3D152 01AA	TSEC/KG-30 Series, Limited Maintenance (STP)	Keesler
E6AZS3D152 01BA	TSEC/KG-81, Limited Maintenance (STP)	Keesler
E6AZS3D152 01CA	TSEC/KG-84, Series Limited Maintenance (STP)	Keesler
E6AZS3D152 01DA	TSEC/KI-1 Series, Limited Maintenance (STP)	Keesler
E6AZS3D152 01EA	TSEC/KY-57/58, Limited Maintenance (STP)	Keesler
E6AZS3D152 01HA	TSEC/KG-94/94A/194/194A, Limited Maintenance (STP)	Keesler
E6AZS3D152 01IA	TSEC/KGV-8/11/ST-61, Depot Maintenance (STP)	Keesler
E6AZS3D152 01KA	TSEC/CI-10, Limited Maintenance (STP)	Keesler
E6AZS3D152 01LA	TSEC/KY-68/78, Limited Maintenance (STP)	Keesler
E6AZS3D152 01NA	TSEC/KGR-28/KGT-7/ST-19, Limited Maintenance (STP)	Keesler
E6AZS3D152 01OA	TSEC/KG-28/29, Limited Maintenance (STP)	Keesler
E6AZS3D152 01PA	TSEC/KG-83, Operational Certification Training (STP)	Keesler
E6AZS3D152 01QA	TSEC/KY-90, Limited Maintenance (STP)	Keesler
E6AZS3D152 01RA	TSEC/KG-30, Series, Limited Maintenance (STP)	Keesler
E6AZS3D152 01SA	TSEC/KG-95, Series, Depot Maintenance (STP)	Keesler
E6AZS3D152 01VA	TSEC/KG-40A, Limited Maintenance (STP)	Keesler
E6AZS3D152 01WA	TSEC/KY-99, Limited Maintenance (STP)	Keesler
E6AZS3D152 02AA	TSEC/KG-189, Limited Maintenance (STP)	Keesler

11. Air University Courses.

For a current listing of Air University courses go to http://www.au.af.mil/au/afiadl.

12. Exportable Courses.

For a current list of the available CBT courses refer to https://www.my.af.mil/faf/FAF/fafHome.jsp, (Under IT E-Learning).

Section E - MAJCOM Unique Requirements

13. The following MAJCOM provided courses are available to support Cyber Transport Systems training. They are open to all active, reserve, and guard military and civilians.

Course Title	MAJCOM	Unit	Location	POC
Network Lab	USAFE	1 CMXS	Kapaun AS	MSgt Eric Kastner, DSN 489-671
ATM switches	USAFE	435 CS	Ramstein	CMSgt Cameron Bledsoe, USAFE/A6, DSN 480-7933